# The Health Care For All Californians Act: Cost and Economic Impacts Analysis 

Analysis Based Upon SB 921 as of April 30, 2004 With Clarifications Provided by Author's Staff

> Prepared for:

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by:



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## Table of Contents

EXECUTIVE SUMMARY ..... I
I. INTRODUCTION .....  .1
II. SPECIFICATIONS OF THE ACT FOR CALIFORNIA .....  2
A. Governance .....  2
B. Eligibility ..... 3
C. Covered Services ..... 4
D. Benefits Design ..... 5
E. Disposition of Medi-Cal ..... 6
F. Exclusion of Workers Compensation Medical Benefits ..... 6
G. HMO Coverage Option ..... 6
I. Health Spending in Future Years ..... 8
E. Financing .....  8
III. ESTIMATING THE IMPACT OF THE ACT ..... 10
A. The Health Benefits Simulation Model (HBSM) for California ..... 10
B. Data For California Households ..... 12
C. Employer Database ..... 13
D. Health Spending Data ..... 13
E. Projections Through 2006 ..... 14
IV. SUMMARY OF KEY ASSUMPTIONS ..... 17
A. Utilization of Health Service ..... 17
B. DRUG FORMULARY ..... 20
C. Durable Medical Equipment Purchasing ..... 23
D. Administrative Costs ..... 23
E. Workers Compensation Program Costs ..... 24
F. Health System Fraud ..... 24
G. Employer Response ..... 25
V. ESTIMATED COST IMPACTS ..... 27
A. Impact on Statewide Health Spending ..... 27
B. Program Costs and Revenues ..... 30
C. Impact on State and Local Governments ..... 33
D. Impact on Federal Health Expenditures in California ..... 35
E. Private Employer Impacts ..... 36
F. Impact on Family Health Spending ..... 42
VI. ALTERNATIVE BENEFITS DESIGNS ..... 49
A. Alternative Benefits Design for Acute Care ..... 49
B. The Cost of Expanding Coverage of Nursing Home Services ..... 50
VII. ALTERNATIVE FINANCING ..... 52
VIII. HEALTH SPENDING IN FUTURE YEARS ..... 58
IX. CAVEATS ..... 62
A. Administrative Spending in California .....  1
B. Insurer Administrative Expenses. ..... 2
C. Physician Administrative Costs ..... 6
D. Hospital Administrative Expenses ..... 13
APPENDIX A: The Impact of the Act On Health Care Administrative Costs in California ..... A-1
APPENDIX B: Health Expenditures in California Under Current Law in 2006 ..... B-1
APPENDIX C: The California Version of the Health Benefits Simulation Model (HBSM) ..... C-1

## LEWIN GROUP EXPERIENCE

The Lewin Group has over 18 years experience in analyzing the impact of health reform initiatives on major stakeholder groups including employers, providers, governments and consumers. The Lewin analyses are based primarily upon a model of the U.S. healthcare system called the Health Benefits Simulation Model (HBSM), which first came to prominence in 1989 when it was used to estimate the cost of alternative universal coverage proposals for the Bipartisan Congressional Commission on Health Care. Since then, the model has been used to analyze a broad range of health reform proposals at the state and federal levels. In 2002, the model was used to estimate the impacts of nine alternative health reform proposals for California under the State Planning Grant project sponsored by the California Health and Human Service (CHHS) Agency. The project was funded by the U.S. Health Research and Services Administration (HRSA), SB 480, and the California Endowment.

This analysis was directed by Mr. John Sheils, a vice president with the Lewin Group, who is a nationally known expert on designing and evaluating health coverage expansion proposals. He joined Lewin in 1980 and has worked to establish the firm as one of the few independent sources of information on the financial impacts of major health reform initiatives. He has testified before various congressional committees and often works directly with members of Congress in evaluating and developing health reform initiatives. Mr. Sheils recently completed a comparative analysis of ten major health reform proposals for the Robert Wood Johnson Foundation (RWJF). A detailed documentation of HBSM is available upon request.

## EXECUTIVE SUMMARY

In this study we estimated the impact of covering all California residents under a single health plan. The proposal that we analyzed is the "Health Care for All Californians Act: SB 921", (hereafter referred to as the "Act") introduced in February of 2003, with clarifications provided by the authors' staff through April 30, 2004. This analysis does not reflect any changes to the bill that may have occurred since that time.

The program would cover a broad range of health services for all California residents, including an estimated 4.7 million Californians who are currently uninsured. Premium payments to insurers would be eliminated for employers and individuals, except for coverage of services not covered by the program. Instead, the system would be funded with current spending for government health programs and new taxes to replace the premiums eliminated under the program.

We estimated the amount of health spending in California under current law in 2006 for the various payers in California including employers, households, the federal government and state and local governments. We then estimated health expenditures for each of these payer groups assuming the Act is implemented in 2006. The difference between estimated spending in 2006 under the Act and the estimated amounts spent in 2006 under current law, provide estimates of the impact of the program on spending for each payer group. Estimates of the cost impacts of the Act are provided for employers by firm size, industry, households, by age, income level and other demographic characteristics.

## The Health Care For All Californians Act (SB 921)

The Act would cover all Californians under a single health plan that is administered and funded by the state. The program would replace all current public-sector insurance systems for Californians including: Medicare, Medi-Cal, Healthy Families, and military dependent coverage. It would also replace private health insurance plans in the state (with the exception of insurance purchased to cover services not covered by the Act. However, the medical component of the workers compensation system would be unchanged and would continue to operate separately for work related illnesses. The program would be financed with current government health care funding for discontinued programs, a payroll tax to replace employer benefits plans and other taxes to replace the premiums currently used to finance health care in the state.

The program's benefits package covers a broader range of services than are now covered under many health plans. The program would cover medically appropriate hospital inpatient and outpatient care, emergency room visits, physician services (including preventive care), prescription drugs, lab tests, mental health and substance abuse treatment, eyeglasses and other services. The program would also cover home health and adult daycare services for the aged and/or disabled. Dental care would be covered along with vision exams and hearing. It would not cover cosmetic surgery, some orthodontia and private hospital rooms (unless medically necessary).

There generally would be no deductible or co-payments for services under the program. However, to encourage the use of primary care services, patient visits to physician specialists without referral by a primary care provider would not be covered. Medi-Cal benefits would be continued under existing eligibility rules for the services that are now covered under Medi-Cal, but that would not be covered under the Act such as nursing home care.

In the initial year of the program, provider payment levels would be set so that the amounts paid under the Act are on-average equal to what providers are receiving for these services from the various public and private payers under the current system. Spending in future years would be determined through a budgeting system that is required to limit the growth in health spending so that it does not exceed the long-term rate of growth in state Gross Domestic Product (GDP).

## State-Wide Health Spending Under The Act

We estimate that total health spending for California residents under the current system will be about $\$ 184.2$ billion in 2006. This includes spending for benefits and administration currently covered by all payers including governments, employers and families. We estimate that the Act would achieve universal coverage while actually reducing total health spending for California by about $\$ 8.0$ billion (Figure ES-1).

Figure ES-1
Changes in State-Wide Health Spending Under The
Act in 2006

|  | Amount (in millions) |
| :---: | :---: |
| Current Health Spending ${ }^{\text {a/ }}$ | \$184,234 |
| Increases in Utilization |  |
| Utilization Change for Uninsured | \$5,872 |
| Utilization Change for Currently Insured Who Lack Coverage for Specific Services (i.e., Drugs, Mental Health, Dental etc.) | \$4,450 |
| Home Health Utilization | \$1,476 |
| Elimination of Cost Sharing | \$9,472 |
| Increased Primary Care Emphasis | $(\$ 3,408)$ |
| Reduced Fraud (State Subpoena Powers) | (\$793) |
| Total changes in Utilization | \$17,071 |
| Spending Offsets |  |
| Bulk Purchasing | $(\$ 5,204)$ |
| Prescription Drugs \$4,418 |  |
| Durable Medical Equipment \$786 |  |
| Administrative Costs | (\$19,860) |
| Insurer Administration \$9,686 |  |
| Hospital Administration \$3,560 |  |
| Physician Administration \$6,614 |  |
| Total Offsets | $(\$ 25,064)$ |
| Net Change in Health Spending Under The Act |  |
| Net Change | $(\$ 7,995)$ |

${ }^{\text {a/Excludes public health. }}$
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

We estimate an increase in health services utilization of about $\$ 17.1$ billion as comprehensive health insurance coverage is extended to all Californians. This would be more than offset by savings of $\$ 25.0$ billion due to administrative simplification and bulk purchasing of prescription drugs and medical equipment.

The increase in health services utilization (\$17.1 billion) would occur as comprehensive coverage is extended to all Californians. There would be an increase in utilization of health services of about $\$ 5.9$ billion as uninsured Californians (about 4.7 million people in 2006) become covered. There also would be an increase in utilization among currently insured people who currently are not covered for some of the services covered under the Act such as dental care and prescription drugs ( $\$ 4.4$ billion), and increased home health services utilization of about $\$ 1.5$ billion. Utilization would increase by an additional $\$ 9.5$ billion due to the elimination of deductibles and co-payments. These utilization increases would be partly offset by savings due to expanded use of primary care ( $\$ 3.4$ billion), and improved fraud detection resulting from the subpoena powers the state would have in investigating claims ( $\$ 793$ million).

The cost of these increases in utilization would be more than offset by savings from administration simplification and bulk purchasing savings. The Act would replace the current system of multiple public and private insurers with a single source of payment for all covered services, resulting in savings of about $\$ 19.9$ billion in insurer and provider administrative costs. Savings from bulk purchasing of prescription drugs and durable medical equipment (e.g., wheelchairs) would be about $\$ 5.2$ billion.

Thus, the cost of increased utilization of health services under the program is more than offset by the savings in administration and bulk purchasing. The net savings in health spending for California would be about $\$ 8.0$ billion if fully implemented in 2006, which is equal to about 4.3 percent of total health spending in the state.

## State and Local Government Spending

Program expenditures under the Act would be about $\$ 166.8$ billion if fully implemented in 2006. This includes about $\$ 150.2$ billion in payments to providers for primary and acute care services and about $\$ 13.7$ billion in spending for long-term care services (Figure ES-2). The cost of administration under the program would be about $\$ 2.9$ billion, which is equal to about 1.8 percent of total program costs.

Funding sources for the Act would include funding for existing government health benefits programs and new dedicated taxes under the program to replace the premiums used to finance health care in the current system. Total government spending for discontinued programs would be about $\$ 72.1$ billion in 2006, of which about $\$ 54.9$ billion is federal funding for Medicare, Medi-Cal and other federal health benefits programs. This assumes that federal law is changed to transfer federal funds for California residents under these programs to the Act, which would then be responsible for covering these beneficiaries. It also includes about $\$ 17.2$ billion in state and local government funding for Medi-Cal, Health Families and other safety-net programs.

Figure ES-2

## Sources and Uses of Funds Under The Act in 2006 (in billions)

| (in 2006 (in bilions) |  | Amount (in billions) |
| :---: | :---: | :---: |
| Uses of Funds Under The Act |  |  |
| Total Benefits Payments |  | \$163.9 |
| Primary and Acute Care | \$150.2 |  |
| Long-Term Care | \$13.7 |  |
| Administrative Costs |  | \$2.9 |
| Total Program Costs |  | \$166.8 |
| Sources of Funds Under The Act |  |  |
| Funding for Existing Government Programs for Californians |  | \$72.2 |
| Federal Spending | \$54.9 |  |
| State and Local Spending | \$17.2 |  |
| Dedicated Taxes |  | \$94.6 |
| Employer Payroll Tax (8.17 percent) ${ }^{\text {a/ }}$ | \$55.7 |  |
| Employee Payroll Tax (3.78 percent) ${ }^{\text {a/ }}$ | \$25.8 |  |
| Self-Employed Business Income Tax (11.95 percent) ${ }^{\text {a/ }}$ | \$8.3 |  |
| Non-wage/Non-business Tax (\$3.5 percent) ${ }^{\text {a/ }}$ | \$3.5 |  |
| Surcharge on Incomes over \$200,000 (1.0 percent) | \$1.3 |  |
| Total Sources of Funds |  | \$166.8 |

## Net Savings to State and Local Governments Under The Act

Savings in State and Local Worker Health Benefits
(\$0.9)
a/ There is a floor on taxable income of $\$ 7,000$ and a ceiling on taxable income of $\$ 200,000$ for each of these taxes.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

The balance of program funding ( $\$ 94.6$ billion) would be revenues from newly created taxes that replace existing premium payments for employer-sponsored insurance (ESI), and individual payments for health insurance premiums. These taxes include:

- An employer payroll tax equal to 8.17 percent of wages and salaries for all employees ( $\$ 55.7$ billion);
- An employee payroll tax equal to 3.78 percent of wages and salaries for all workers ( $\$ 25.8$ billion);
- A tax on net business income for the self-employed of 11.95 percent ( $\$ 8.3$ billion);
- Tax on unearned income of 3.5 percent ( $\$ 3.5$ billion); and
- Surcharge on income over $\$ 200,000$ of 1.0 percent ( $\$ 1.3$ billion).

There is a floor on taxable income of $\$ 7,000$ and a ceiling on taxable income of $\$ 200,000$ for each of these taxes, except the surcharge on income over $\$ 200,000$.

In addition, state and local governments would save about $\$ 900$ million in spending for health benefits provided to state and local government workers and retirees. This is because the
payroll tax payment for these workers under the Act would be less than what state and local governments are now paying for worker and retiree health benefits. As a consequence, the net cost of the program to state and local governments is a savings of about $\$ 900$ million in 2006.

## Impact on Private Employers

We estimate that under current law, private employers in California will spend about $\$ 49.6$ billion on health benefits for employees, dependents and retirees in 2006 (includes employer costs less employee contributions; excludes workers compensation). This includes about $\$ 46.8$ billion in spending for workers and dependents and $\$ 2.8$ billion in spending for retirees. Under the Act, this coverage would be eliminated and replaced with a payroll tax of 8.17 percent on earnings between $\$ 7,000$ and $\$ 200,000$ for each worker.

Employers who currently offer health benefits would find that their payroll tax payment (\$41.7 billion) is on average about 16 percent less than what they will pay for health benefits under current law in 2006 (i.e., savings of about $\$ 7.9$ billion). This is even after accounting for payroll tax payments for employees that are not now covered under the employer's plan. Firms that do not now offer insurance would pay about $\$ 9.4$ billion in payroll taxes in 2006.

Private employers that now offer insurance will spend about $\$ 4,723$ per worker in 2006 under current law (Figure ES-3), reflecting the high cost of insurance for small groups in the current system. Average spending per worker for currently insuring firms would actually decline by about $\$ 775$ under the Act to about $\$ 3,947$ per worker. Firms that do not now offer coverage would also pay the payroll tax. The average cost per worker in these firms would be about \$2,290.

Savings would be greatest for insuring firms that provide the most comprehensive coverage. For example, currently insuring firms that cover 80 percent or more of their employees would on average see savings of about $\$ 2,186$ per worker (Figure ES-4). On average firms that cover 80 percent or more of their workers would see savings across all firm size groups.

## Household Impacts

Under current law, Californians will have out-of-pocket spending for health services and health insurance premiums averaging about $\$ 2,788$ per family in 2006 (Figure ES-5). This includes family premium payments and employee contributions for ESI averaging $\$ 1,558$ per family, and direct payments for health services including insurance co-payments of $\$ 1,229$ per family.

We estimate that average family spending for health care would decline to about $\$ 2,448$ per family under the Act in 2006, which is an average savings of about $\$ 340$ per family. This reflects the elimination of nearly all premiums and co-payments for health services, offset by the new household tax payments created to replace premium payments under the current system. It also reflects changes in wages as employers adjust to changes in spending for health care. Thus, households on average see a net reduction in health spending, even after we account for the new taxes that households would pay to replace current premium financed health insurance system.

Figure ES-3
Change in Average Employer Health Spending Per Worker in California by Firm Size Under
the Act in $2006^{\mathrm{a} / \mathrm{b} / \mathrm{m}}$

|  | Firms that Now Offer Insurance ${ }^{\text {c/ }}$ |  |  | Firms That Do Not Now Offer Insurance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Spending per Worker Under Current Law in 2006 | Change in Spending per Worker Under The Act in 2006 | Spending per Worker Under The Act in 2006 | Spending per Worker Under Current Law in 2006 | Change In Spending per Worker Under The Act in 2006 | Spending per Worker Under The Act in 2006 |
| Firm Size |  |  |  |  |  |  |
| Under 10 Workers | \$5,864 | $(\$ 1,400)$ | \$4,464 ${ }^{\text {d/ }}$ | -- | \$2,557 | \$2,557 |
| 10-24 Workers | \$4,363 | (\$311) | \$4,052 | -- | \$2,462 | \$2,462 |
| 25-99 Workers | \$3,272 | \$379 | \$3,651 | -- | \$1,522 | \$1,522 |
| 100-499 Workers | \$4,079 | (\$85) | \$3,994 | -- | \$1,708 | \$1,708 |
| 500 + Workers | \$5,503 | $(\$ 1,978)$ | \$3,525 | -- | \$1,807 | \$1,807 |
| All Private Firms |  |  |  |  |  |  |
| All Private Firms | \$4,723 | (\$775) | \$3,947 | -- | \$2,290 | \$2,290 |

a/ Includes employer health benefits expenses for workers, dependents and retirees less the premium contribution required from participants. b/ All figures include hourly and salaried workers and the self-employed. Payroll taxes for the self-employed in this table include the share of the payroll tax they would pay if they were an employee ( 8.17 percent). The remainder of the self-employed payroll tax ( 3.78 percent) is counted as a family tax payment below in the household impacts analysis.
c/ Includes the change in total employer spending for health insurance, including retiree costs, divided over the total number of active workers in the firm including both participating and non-participating workers.
$\mathrm{d} /$ Cost under the Act for small firms that now offer coverage would continue to be higher than among other firms because the majority of small firms that now provider insurance have more highly compensated workers (law offices, doctors etc.), and therefore would pay a higher payroll tax amount per worker than most other employers.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Figure ES-4
Change in Employer Costs Per Worker For Insuring Firms Currently Covering 80 Percent or More of Their Workers by Firm Size Under the Act


Number of Employees
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Figure ES-5
Change in Average Family Health Spending in California Under the Act in $2006{ }^{a}{ }^{a}$

|  | Average Spending per Family Under Current Law in 2006 | Average Spending per Family Under the Act in 2006 | Change in Spending Under the Act in 2006 |
| :---: | :---: | :---: | :---: |
| Age of Family Head |  |  |  |
| Under Age 25 | \$985 | \$702 | (\$283) |
| Age 25-34 | \$1,963 | \$1,702 | (\$261) |
| Age 35-44 | \$2,743 | \$2,938 | \$195 |
| Age 45-54 | \$3,555 | \$3,561 | \$6 |
| Age 55-64 | \$3,624 | \$2,709 | (\$915) |
| Age 65 and older | \$3,150 | \$1,875 | $(\$ 1,275)$ |
| All Families |  |  |  |
| Total Families | \$2,788 | \$2,448 | (\$340) |

a/ Includes changes in premiums, out-of-pocket expenses and wages less new taxes to replace premium payments under the program.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Savings would vary with age of family head, with the greatest savings occurring among families headed by someone age 65 and older. Savings for these families would average about $\$ 1,275$ per family in 2006 reflecting the fact that older people tend to have the highest health spending, and generally would not to be subject to the payroll taxes because most elderly are not employed. There generally would be savings to all age groups except those headed by someone age 35 to 44 , where spending would increase by about $\$ 195$ per family.

Families with under $\$ 150,000$ in annual income would on average see savings ranging between $\$ 600$ and $\$ 3,000$ per family under the program in 2006 (Figure ES-6). However, health spending for families with $\$ 150,000$ or more in income would on average increase from what they pay under current law. This reflects the fact that the program would shift California from a premium-financed health care system to a tax-financed system where total family tax payments for health spending generally would be in proportion to family earnings and income.

Figure ES-6

## Change in Average Health Spending per Family by Income Group Under the Act in $2006{ }^{\text {a/ }}$


a/ Includes changes in family out-of-pocket payments for premiums and health services, and changes in tax payments and wages resulting from the Act.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## Spending in Future Years

The program would have long-term impacts on health spending in California. The growth in total program expenses under the Act would be constrained not to exceed the long-run rate of growth in state gross domestic product (GDP), which is projected to be about 5.14 percent per year between 2006 and 2015. Total statewide health spending would increase from about $\$ 184.2$ billion in 2006 to $\$ 345.6$ billion by 2015 under current trends (Figure ES-7).

These state-wide health spending estimates include the cost of all health spending including both services covered under the Act and services not covered under the Act such as some nursing home spending.

By 2015, health spending in California under the Act would be about $\$ 68.9$ billion less than currently projected (i.e., $\$ 345.6$ billion). Total savings over the 2006 through 2015 period would be $\$ 343.6$ billion. Savings to state and local governments over this ten-year period would be about $\$ 43.8$ billion. This reflects savings in health benefits for state and local government workers and the reduced rate of growth in state and local government contributions to the Act resulting from spending controls over time.

Figure ES-7
Projected Growth in Health Spending for California Under Current Trends and The Act: 2006-2015 (in billions)


## I. INTRODUCTION

In this study, we estimated the cost impacts of covering all California residents under a statewide health insurance program. This includes estimates of the impact of such a program on state-wide health spending and the amounts paid by major stakeholder groups including state and local government, employers, consumers, providers and the federal government. We also present detailed analyses of employer impacts by firm size and industry, and estimates of changes in health spending for consumers by income, age and other demographic characteristics.

The Act covers all state residents under a single health insurance plan that is administered and funded by the state. The new program would replace all current state and federal public sector insurance systems in the state. It would also replace employer and other private health insurance plans in California. The program would be financed with: funding for current government health care programs; and dedicated revenues from taxes on payroll, business income and unearned income, that replace premium payments for health insurance under the current system.

These estimates are based upon data from several sources on health expenditures in California. The model uses the California sub-sample of the March 2003 Current Population Survey (CPS) data which provides estimates of the sources of coverage for California residents and the distribution of people by income and demographic group. We supplemented these population data with health spending for consumers by income and demographic group reported in the Medical Expenditures Panel Survey (MEPS) data.

We used the most recent data on health spending for public programs in California under Medi-Cal, Healthy Families (i.e., the state children's health insurance program (SCHIP)), the Major Risk Medical Insurance Program (MRMIP), and various sources of safety-net funding for the medically indigent. We also used data on private health spending in California compiled by the Centers for Medicare and Medicaid Administration (CMS) and the California sub-sample of the MEPS survey of employer health plans. Other state-level data sources were also used including the California Office of Statewide Health Planning and Development (OSHPD). Tax base data were obtained from the Franchise Tax Board (FTB) and tax projections were obtained from the Legislative Analyst Office (LAO).

Appendix $\boldsymbol{C}$ describes the modeling system developed for California. Appendix $\boldsymbol{B}$ describes the methods used to estimate health spending in California by type of service and source of payment. Appendix A describes the methods used to estimate the impact of the program on health care administrative costs. Our analysis is presented in the following sections:

- Program specifications;
- Estimating the impact of the Act;
- Key assumptions;
- Program cost impacts;
- Alternative benefits design;
- Alternative financing;
- Impact on health spending in future years; and
- Caveats.


## II. SPECIFICATIONS OF THE ACT FOR CALIFORNIA

In this study we estimated the impact of a health insurance program covering all Californians. The proposal that we analyzed is the "Health Care for All Californians Act" (SB 921) introduced on February of 2003, with clarifications provided by the authors staff through April 30, 2004. This analysis does not reflect any changes that may have been made to the bill since that time.

The Act that we analyzed creates a single source of insurance for nearly all health services provided to California residents. The program includes a comprehensive benefits package covering hospital care, physicians services, and prescription drugs. It would also cover durable medical equipment, eyeglasses and rehabilitative services. People would have the choice of selecting their own primary provider or being covered through an HMO or other integrated delivery system that would be paid a risk adjusted amount to cover all costs for enrollees.

The program would place hospitals and clinics on annual budgets for operations and capital expenditures, thus eliminating the need for billing for hospital care. Other providers would be reimbursed on a fee-for-service basis unless they are salaried employees of an integrated delivery system. Health professionals would continue to operate their own practices and health facilities would remain independently owned.

We summarize the major components of the program created under the Act in the following sections:

- Governance;
- Eligibility;
- Covered services;
- Benefits Design;
- Disposition of Medi-Cal;
- Exclusion of Workers Compensation Medical Benefits;
- HMO coverage option;
- Provider payments in first year;
- Program Financing; and
- Health spending in future years.


## A. Governance

We assume that an independent agency is established to administer the Act for California called the California Health Care Agency (CHCA). The program would be directed by a newly established elected official entitled the California Health Care Commissioner. The Commissioner would be responsible for administration of the program including:

- Implementing eligibility standards and program enrollment;
- Adopting a benefits package;
- Establish formulae for setting health expenditure budgets;
- Administer the program including providing for the timely payment of providers;
- Negotiate for prescription drugs;
- Recommending an evidence-based benefits package; and
- Other administrative functions.

The agency also would be comprised of the following:

- Health Policy Board: Establishes policy on medical issues, reviews innovations in medical practice, and establishes criteria for evaluating requests for capital expansions for health facilities;
- The Office of Consumer Advocacy: Responsible for setting procedures for resolving consumer disputes and initiatives to educate consumers on the benefits they are entitled to receive;
- The Office of Health Care Planning: Responsible for planning for the health care needs of the population; and
- Office of Health Care Quality: Measures and evaluates indicators of health care quality. Also establishes evidence based standards for delivery of care and for prescription drug and durable medical equipment formularies for the California health care system.

We assume that the program creates within the Office of the Attorney General an Office of the Inspector General who would have broad subpoena powers to investigate fraud in the new program.

## B. Eligibility

All state residents would be covered for a standard benefits package including:

- U.S. Citizens;
- Legal resident non-citizens; and
- Undocumented non-citizens.

The program would require the Commissioner to establish procedures for determining residency. For illustrative purposes, we assume that the Commissioner would establish a threemonth residency requirement to avoid covering out-of-state residents with pre-existing conditions who might relocate to California solely to take advantage of the program. The three month residency requirement is assumed to be waived for the following:

- People relocating to California to take a job (includes migrant workers); and
- People experiencing a change in family status due to divorce or death of a spouse.


## C. Covered Services

The plan would cover the following services:

- Inpatient/outpatient health facility or clinic services;
- Inpatient and outpatient professional provider services by licensed professionals;
- Diagnostic imaging, laboratory services, and other diagnostic and evaluative services;
- Rehabilitative care;
- Emergency transportation and necessary transportation for health care services for disabled people;
- Language interpretation for health care services including sign language for those unable to speak, or hear or who are language impaired, and brail translation or other services for those with no or low vision;
- Child and adult immunizations and preventive care;
- Health education;
- Hospice care;
- Home health post-acute care (i.e., recuperative);
- Home and Community based care (assumed to be restricted to people with three or more limitations in activities of daily living (ADLs);
- Adult day care (assumed to be used as a lower-cost substitute for nursing and home care);
- Prescription drugs that are listed on the system formulary. Off-formulary prescription drugs may be included where special standards and criteria are met;
- Mental Health Care;
- Dental care;
- Orthodontia (overbite and underbite);
- Podiatric care;
- Chiropractic care;
- Acupuncture;
- Blood and blood products;
- Emergency care services;
- Vision Care including eyeglasses (assumed limit of one pair per year);
- Hearing including hearing aids;
- Home Health and Adult day care for people with three or more limitations in activities of daily living;
- Case management and coordination to ensure services necessary to enable a person to remain safely in the least restrictive setting;
- Substance abuse treatment;
- Durable medical equipment including hearing aids;
- Care for up to 100 days in a skilled nursing facility following hospitalization; and
- Dialysis.

Services not covered by the program include:

- Nursing Home services (except those already covered for Medi-Cal eligible people);
- Non-prescription medications and non-durable medical supplies;
- Health services determined to have no medical indication;
- Surgery, dermatology, orthodontia, prescription drugs, and other procedures primarily for cosmetic purposes, unless required to correct congenital defect, restore or correct a part of the body that has been altered as a result of injury, disease, or surgery;
- Private rooms in inpatient facilities unless determined to be medically necessary by a qualified licensed health care provider in the system; and
- Services provided by unlicensed or unaccredited providers.


## D. Benefits Design

For the first two years of the program, there generally would be no deductibles or co-payments under the program. However, the benefits package would be designed to increase emphasis on primary and preventive care as follows:

- Participants would be encouraged to select a primary care physician from one of the primary care specialties including internists, family physicians, pediatricians, family nurse practitioners and physician assistants practicing under supervision of a physician as required under the California code. Women would have the option of selecting a gynecologist for primary care; and
- Patient visits to physician specialists without a referral by a primary care provider would not be covered. (Referral is not required for each follow-up visit to specialists.)

After two years, the commissioner is authorized to establish deductibles and/or co-payments if necessary subject to the following restrictions;

- Co-payment amounts would be limited not to exceed $\$ 250$ per individual and $\$ 500$ per family per year;
- Deductibles would be limited not to exceed $\$ 250$ per individual and $\$ 500$ per family per year; and
- No co-payments or deductibles will be established for preventive care.

The program would not include co-payments for prescription drugs. However, it would require the use of a prescription drug formulary based upon prices negotiated with pharmaceutical manufacturers. Under this system, specific drugs are selected for inclusion in the formulary for each type of medical therapy. Providers would not be permitted to prescribe off-formulary medications (usually higher cost) unless the formulary drug is ineffective or inappropriate (e.g., side-effects from formulary medication) according to guidelines established by the Chief Medical Officer. As discussed below, the use of a formulary that selects drugs on the basis of price is key to negotiating price discounts with drug manufacturers.

The Act would also negotiate for discounts with manufacturers of durable medical equipment. Under this system, the state would contract with suppliers who offer the lowest price for their equipment. This means that the medical equipment offered by manufacturers and/or suppliers who do not bid the lowest price in the competitive bidding process generally would not be
covered under the program. This design would enable the state to negotiate deep discounts for durable medical equipment.

## E. Disposition of Medi-Cal

Funding for Medi-Cal and Healthy Families would be transferred to the Act that would provide benefits to all Californians. However, the Medi-Cal program is assumed to be continued to cover services currently covered under Medi-Cal that would not be covered under the Act. These services include:

- Nursing home room care for low income people;
- Certain non-prescription medications;
- Non-durable medical equipment; and
- Non-emergency transportation.

Medi-Cal would also cover Medicaid Early and Periodic Screening, Detection and Treatment (EPSDT) services for children now covered under the program. Federally mandated EPSDT services under Medicaid include the following:

- Screening;
- Hearing;
- Medically necessary orthodontia; and
- Non-rehabilitative therapies including:
- Speech therapy;
- Occupational therapy; and
- Physical therapy.

Note that under the Individuals with Disabilities Education Act (IDEA), public school systems are required to provide these non-rehabilitative therapeutic services for children where needed. Thus, Medicaid payments for these services are often paid to school systems for Medicaid eligible people receiving these services through school.

## F. Exclusion of Workers Compensation Medical Benefits

We assume that the medical component of the workers compensation program would be unaffected and remain separate from the Act. Thus we assume no change in workers compensation medical coverage and benefits. The medical component of workers compensation could be folded into the program in the future.

## G. HMO Coverage Option

Beneficiaries would have the option of selecting their own primary provider or enrolling in integrated delivery system models such as Health Maintenance Organizations (HMO). The following would apply:

- People are generally assumed to be required to remain in the plan for a year. However, there is a three month trial period in which patients may disenroll for any reason. They may also disenroll at any time if the health plan can not provide needed care. In addition, patients may appeal to the Consumer Advocate (created under the program) for early disenrollment, that would be provided if deemed warranted; and
- Payments to the plan would be risk-adjusted and calibrated so that enrollment in HMOs is budget neutral to the Act. For example, if the HMO for some reason enrolls a disproportionate share of older people, the amount of money needed to provide the services they require would on average be substantially greater than the cost of care for those who do not join the HMO (who are disproportionately younger). Thus, in this example, we would assume that the payments to the HMO are adjusted to reflect the higher cost of caring for those who enroll in the HMO. Payment adjustments of this type are essential to avoid either under-funding or over-funding care for HMO enrollees.


## H. Provider Payments in First Year

Health spending for covered services under the program would be determined through a budgeting process designed to control the growth in health spending for Californians. Spending in the first year of the program would be determined as follows:

- Hospitals and clinics would be given annual budgets that in the first year are equal to what total spending for hospital and clinic services would have been in that year under the current system. Separate budgets would be set for operations and capital expansion; and
- Fee-for-service (FFS) payment rates for other providers would be set so that on average, payment rates under the program in the first year are equal to overall average payment rates across all payers in today's system (i.e., private payers, Medicare and Medicaid) for each individual unit of service. These include payments from private payers, Medicare, Medi-Cal, Healthy Families and self-pay (includes prices for services purchased by the uninsured and prices paid by insured people for services that are not covered under their health plan).

The program would permit the Commissioner to adjust payments for certain types of providers or services to reflect desired changes in the allocation of health resources. For example, payments for primary care services could be increased to reflect a desired increase in emphasis on primary and preventive care. However changes in reimbursement levels for other services would be adjusted so that total spending does not exceed the aggregate levels of spending determined above.

Hospital budgets and aggregate FFS provider payments would be adjusted to reflect the following:

- Increased utilization for newly insured;
- Increased utilization due to elimination of co-payments;
- Changes in spending due to the primary care model;
- Reductions in bad debt and charity care costs for providers;
- Changes in home health and adult daycare service utilization; and
- Provider administrative savings.


## I. Health Spending in Future Years

The program would determine the increase in health spending permitted in each year. We assume that the program is required in legislation to constrain the rate of growth in health spending so it does not exceed the long-term rate of growth in gross domestic product (GDP) for California. Budget levels would be set on the basis of the long-run projected rate of growth in GDP rather than actual GDP growth. This is necessary so that funding levels for the health care system do not fluctuate over time with short-term variations in state GDP growth.

Spending caps would be implemented through:

- Annual hospital and clinic budgets for operations;
- Annual hospital and clinical capital expansion budgets;
- Caps on the rate of growth in negotiated FFS provider payment rates; and
- HMO payment rates adjusted to reflect the allowable rate of growth in spending.

Spending levels for services would be adjusted to reflect the cost of prescription drugs and durable medical equipment (with bulk purchasing savings) so that aggregate spending under the program is within budgeted levels. For purposes of this analysis, we assumed that FFS payment rates also would be adjusted to reflect any increases in utilization of FFS services that occur during the year so that aggregate spending for these services does not exceed budgeted levels (without an adjustment for increased utilization, spending would increase above budgeted levels).

The system would include reports to providers on quality of care indicators and referral patterns for comparison purposes. Peer review also would be established to monitor referral patterns and quality of care indicators.

## E. Financing

The program would be financed with funds that would have been used for public programs under current law and certain dedicated taxes created under the program. Funding sources include:

- Funding for current federal and state health insurance programs would be recovered including:
- Medi-Cal (state and federal shares);
- Health Families (State Children's Health Insurance Program (SCHIP));
- Aid for Infants and Mothers (AIM) program;
- Medicare;
- TRICARE/Military (military dependents and retirees);
- Major Risk Medical Insurance Program (MRMIP) and high risk-pool; and
- Funding for mentally ill, disabled and substance abuse.
- The program would also recover spending under state and federally funded safety-net programs; and
- County revenues for current safety-net programs would be transferred to the Act.

We assume that the amounts of state and county funding would be indexed by the allowable rate of growth in spending (i.e., GDP growth) as determined by the Commissioner though the budgeting process. Because health spending has been growing considerably faster than the rate of growth in state GDP, this would result in lower levels of health spending for state and county governments in future years than what they would face under current cost trends.

However, we assume that the amount of federal funding provided to the state in future years would be indexed to the average rate of growth in costs in these programs nationally. This is designed to assure that federal funding for the state is not reduced over-time. Thus, from the federal governments perspective, the program is designed to be budget-neutral.

Costs in excess of the amounts of spending collected from existing programs would be raised through new dedicated taxes created to replace insurance premiums eliminated under the program. These include:

- Payroll tax: 8.17 percent on employers
3.78 percent on employees
\$7,000 floor; \$200,000 ceiling
- Business tax: 11.95 percent (self-employed net-income, etc.)
\$7,000 floor; \$200,000 ceiling
- Non-wage/business tax: 3.5 percent (Other investment income and taxable pensions) \$7,000 floor; \$200,000 ceiling
- Surcharge on Income: 1 percent of income above $\$ 200,000$ (all taxable income)

The business and payroll tax rates would be adjusted automatically in each year to the level require to pay for the program.

## III. ESTIMATING THE IMPACT OF THE ACT

We estimated the financial impact of the Act on major payers for health care in California including state and local governments, employers, households and the federal government. In particular, we estimated the distributional impact of this proposal on various subgroups of payers such as small employers and families in various age and income groups. These estimates were developed using the Lewin Group Health Benefits Simulation Model (HBSM) which is specifically designed to provide these detailed distributional impacts analyses for state-level health reform initiatives.

The approach used throughout this analysis is to estimate the difference between what is expected to be spent on health care in California under current law in 2006 and what we estimate would be spent on health care in the state in 2006 if the Act described above in Section II were enacted. The first step in this approach is to estimate the level of health spending and coverage for each stakeholder group in California (i.e., employers, households etc.). The methods for doing this are presented in Appendices B and $\boldsymbol{C}$. We then estimate what spending would be for these same stakeholder groups assuming the program is fully implemented beginning in 2006. For each stakeholder group, the difference between what is spent under the Act and what would have been spent in 2006 under current law form our estimates of the net impact of the program on spending for each stakeholder group.

In this section, we describe the data and methods used in HBSM to develop estimates of the impact of the program in California. We begin by describing the overall methodology used in HBSM. We then explain how the model was adapted to provide California specific estimates of the impact of this bill on health spending by various payers in future years. Our discussion is presented in the following sections:

- The Health Benefits Simulation Model (HBSM) for California;
- Data for California households;
- Data for California Employers;
- Health spending in California; and
- Projections to future years.


## A. The Health Benefits Simulation Model (HBSM) for California

HBSM is a "micro-simulation" model of the health care system. The core of the model is a representative sample of California households. For each household in the sample, these data provide information on health insurance coverage, health spending, income, employment and basic demographic characteristics. The model uses these data to show how expenditures for households will change as they become covered under a new health insurance system such as the Act.

This micro level approach of simulating changes in spending for individual households permits us to estimate the aggregate impact of major health reform initiatives, while simultaneously showing the impact on households of various socioeconomic groups. Because the model is based upon a representative sample of the population, it produces estimates of the impact of
policy proposals on the total number of people affected, aggregate health spending, and program costs. However, because the model develops these estimates on an individual-byindividual basis, the model also provides estimates of the impact of these policies across a wide range of socioeconomic groups.

The model estimates the increase in health services utilization that would occur as coverage is extended to previously uninsured people. The model also determines which of the health services for each individual are covered under the plan, and the reimbursement amount for these services under the plan's reimbursement rules and patient cost-sharing (if any). It also estimates savings to the sources of payment for this care under current law including family out-of-pocket payments, employer premiums, savings in charity care, and reductions in provider uncompensated care.

Using these data, HBSM produces estimates of program impacts by source of payment including:

- Employer Impacts:
- Number of workers and dependents affected;
- Cost to employers;
- Impact on firms that do not now insure;
- Number of firms affected;
- Uncompensated care cost shift savings; and
- Tax savings (corporate deductions for health benefits, if applicable).
- Provider Impacts:
- Utilization by type of service/provider;
- Sources of payment for care;
- Expenditures for services by type of service/ provider; and
- Hospital uncompensated care.
- Household Impacts:
- Number of insured by income, age, sex, etc.;
- Family premium payments; and
- Family out-of-pocket spending.
- Government Impacts:
- Offsets to public hospitals;
- Corporate income tax losses; and
- Tax revenues under various financing mechanisms.


## B. Data For California Households

We base our estimates on income and spending data for households in California drawn from several data sources. Our estimate of the number of people with insurance from various sources and the number of uninsured are based upon data from the 2001 California Health Interview Survey (CHIF). We also obtained data from the FTB and the LAO to provide information on household taxable earnings and adjusted gross income (AGI).

We supplemented these data with information on family income and employment from the California sub-sample of the March Current Population Survey (CPS) conducted by the Bureau of the Census. The resulting data set provides detailed information on California residents by age, income, employment status and other demographic characteristics. To facilitate detailed analyses, we pooled the California sub-samples of the CPS for 2002 and 2003 to form a single database. The March CPS for these years includes a much increased sample size designed to improve the utility of these data for state-level estimates.

## 1. Sources of Health Insurance

A major issue in this analysis is that the various data sources provide very different estimates of the number of people without insurance. The CPS for 2001 shows about 6.3 million people in California without coverage for the entire year. By comparison, the CHIS data shows that there were about 4.5 million Californians without coverage at the time of the interview, and only about 3.6 million people who were uninsured the entire year. The difference between the CPS and the CHIS is that the CPS under-reports the number of Californians with Medi-Cal coverage by about 30 percent and under-reports private insurance coverage by about 5 percent.

We corrected the CPS to replicate the number of people actually served under Medi-Cal and Health Families programs based upon program data. We did this by identifying uninsured people in the CPS who appear to be eligible for these programs based upon their income and assigned a portion of these people to covered status so that these data replicate the number of people who actually participated in these programs. We then adjusted the CPS data to reflect CHIS estimates of the number of people with ESI and the number of people with non-group health insurance.

## 2. Income Data

One advantage in using the CPS data is that it provides detailed income data for all households including those who do not have enough income to be required to file an income tax return. However, the chief problem with the income data in the CPS is that for data confidentiality reasons, the incomes reported by families in these data are capped at $\$ 250,000$ per person (a practice known as top-coding). This makes these data difficult to use these data for revenue estimation and economic impacts analyses affecting higher income people. These data, which report incomes in 2002, also must be adjusted to reflect official tax base and revenue projections for California in 2006.

We addressed these issues by imputing income to people in the CPS who have had their incomes capped so that the database replicates the distribution of families by income level as reported in the FTB data. This was done separately for earnings and non-earnings income. These enhanced household data include the information required to simulate alternative financing mechanisms at higher income levels.

## C. Employer Database

The model includes a database of employers for use in simulating policies that affect employer decisions to offer health insurance. In this project, we used the annual survey of employers conducted by the Kaiser Family Foundation and the Health Research and Educational Trust (HRET) in 1999. We adjusted these data to reflect the results of the KFF/HRET survey for California employers in 2003. These surveys include about 1,000 randomly selected public and private employers with three or more workers in the state. They provide information on whether the employer sponsors coverage and the premiums and coverage characteristics of the plans that insuring employers offer in the state.

Working individuals in the California CPS/MEPS data described above were randomly assigned to KFF/HRET employers who report similar workforce and demographic characteristics. Individuals and firms are matched on the basis of reported industry, firm size and other characteristics of an employer's workforce. In addition, we controlled for the income and demographic characteristics of each employer's workforce when matching individuals to employers. ${ }^{1}$

Our estimates for 2006 under current law reflect the requirements for employers to contribute to the cost of covering their workers implemented under SB 2, which was signed into law in 2003. Under SB 2, firms with 200 or more workers are required to contribute to the cost of covering all employees working over 100 hours per month. This affects relatively few workers because most firms of that size already offer coverage to their full-time workers.

## D. Health Spending Data

Because the CPS does not include health spending data, we merged the adjusted California subsample of the CPS with the Medical Expenditures Panel Survey (MEPS) data. The MEPS data provide information on health services utilization and expenditures for households across various income, age and employment status groups. We adjusted the population and income data in the database to 2003 based upon population projections developed by the Bureau of the Census and other government sources.

[^0]Health expenditures data were controlled to replicate aggregate health expenditures estimates for 2006 by type of service and source of payment. These estimates were compiled from state budget projections for California health programs including Medi-Cal, Healthy Families, the AIM program, MRMIB, and safety-net program funding. Estimates of spending for private insurance in the state were derived from state-wide health expenditures estimates developed by the Centers for Medicare and Medicaid Services (CMS). We also used the MEPS survey of employers to estimate spending for ESI and the amounts paid by the employer and the worker. In addition, hospital spending data were obtained from OSHPD.

The resulting database includes detailed information on health insurance premiums and spending together with the detailed income data discussed above. These combined data enable us to analyze the full range of financial impacts the Act would have on families. These include the elimination of premium payments and cost-sharing for individual health services and household tax payments under the various taxes created to fund health care.

## E. Projections Through 2006

We "aged" the household database to be representative of the California state population in 2006. This was accomplished by adjusting the population totals in these data to reflect trends in population growth by age and sex compiled by the Bureau of the Census. The earnings and other income data reported in the household database were also adjusted to reflect income growth projections. Finally, health expenditures were adjusted to reflect projections of health spending by type of service and source of payment.

## 1. Population Projections

Figure 1 presents our estimate of the distribution of California residents by source of insurance with the correction for under-reporting of insurance coverage discussed above. We estimate a total of about 4.7 million uninsured people without coverage at any given point in time during 2006 (i.e., average monthly coverage status). The estimates in Figure 1 do not add to the total state population because some people have more than one source of health insurance coverage.

Figure 1
Estimated Number of Californians by Source of Insurance in 2006 (in thousands)

|  | Average Monthly Enrollment by Source of Coverage ${ }^{\alpha}$ |
| :---: | :---: |
| Sources of Health Insurance Coverage |  |
| Total Population | 36,694 |
| Employer Coverage | 19,673 |
| Workers 9,682 |  |
| Dependents 9,991 |  |
| Retirees 296 |  |
| Non-Group Policies (excludes Medigap) | 1,756 |
| Medicare | 3,391 |
| Medi-Cal/Healthy Families | 8,441 |
| TRICARE/Military | 489 |
| Uninsured | 4,680 |

a/ Numbers do not add to total because some people report more than one source of coverage. This is particularly true for Medicare recipients who often also have private supplemental coverage (i.e., Medigap), retiree medical benefits or Medi-Cal supplemental coverage. Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

As discussed above, we adjusted the incomes reported by individuals in the database to 2006. Earnings overall were adjusted based upon historical data on real growth in earnings per worker. Non-earnings income was projected based upon the historical rate of growth in nonearnings income per person. These growth estimates were adjusted to be consistent with national income projections provided by the Congressional Budget Office (CBO). We used a methodology that simulates the growth in income for families at differing income levels.

## 2. Health Expenditures

Health expenditures were increased based upon projections of the growth in per-capita health spending by type of service provided by CMS for the US health care system. We adjusted the CMS health spending projections to reflect data showing that private health insurance costs have been growing faster than the national average in recent years.

Using this methodology, we estimate that under current law, health spending in California will reach about $\$ 184.2$ billion in 2006 (these estimates exclude expenditures for public health, research, and construction). Figure 2 presents our estimates of health spending for California residents in 2006 by type of service and source of payment. These data show that employer coverage is the largest single source of payment for health care in the state ( 42.7 percent). Medicare accounted for about 19.9 percent of spending while Medi-Cal and Healthy Families account for 15.1 percent of health spending in the state.

Figure 2
Health Expenditures for California Residents by Type of Service and Source of Payment Under Current Law in 2006 (in millions) al

Expenditures by Type of Service


Total Spending = \$184.2
a/ The cost of administration for physicians, hospitals and other providers is included in the expenditure amounts for each of these types of services. See Appendix B.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## IV. SUMMARY OF KEY ASSUMPTIONS

Our analysis includes several key assumptions concerning the utilization of health services under the program and savings from administrative simplification. We also made several assumptions concerning the economic impacts of the program. The assumptions used to estimate spending under the Act are summarized in the following sections:

- Utilization of Health Services;
- Drug Formulary;
- Durable Goods Bulk Purchasing;
- Administrative costs;
- Workers compensation program costs;
- Health system fraud; and
- Employer response.


## A. Utilization of Health Service

The expansions in coverage and benefits under the Act would result in increased utilization of health services. Utilization of services for uninsured and underinsured people would generally increase due to expanded access to services under the program. The elimination of patient costsharing would also increase utilization for those who now face substantial co-payments and deductibles. In addition, utilization of home health services by the elderly would also increase due to the expansion in coverage for those services. However, these increases in utilization would be partly offset by an increased focus on primary care resulting in reduced spending for avoidable health conditions. Our utilization response assumptions are summarized below.

## 1. Utilization for Uninsured

We assume that uninsured people who become covered under the program would use health care services at the same rate as reported by currently insured people with similar age, sex and health status characteristics. This assumption encompasses two important effects. First, the increase in access to primary care for this population would result in savings due to a reduction in avoidable emergency room visits and hospitalizations. Second, there would be a general increase in the use of such services as preventive care, corrective orthopedic surgery, advanced diagnostic tests, and other care that the uninsured often forego or delay.

Using this methodology, we estimate that health spending among the currently uninsured population would increase. That is, savings from improved primary care would be more than offset by increased use of non-emergency care. We estimate that in California, the uninsured will consume about $\$ 5.5$ billion in health services in 2006, including free care (i.e., uncompensated care valued at cost) and services purchased out-of-pocket. Using these assumptions, we estimate that if these individuals were to become insured, utilization of health services would increase for these newly insured people by about 67 percent.

## 2. Utilization for Under-insured

Many of the insured have insurance that does not cover certain services including prescription drugs, dental care, orthodontia and medical equipment. In this analysis, we assume that utilization of these services by people who are not currently covered for these services would increase to the levels observed among those with similar demographic and health status characteristics who do have coverage for these services.

However, we are not able to identify whether individuals in the MEPS data have coverage for these services. It was necessary to impute coverage for prescription drugs and dental care based upon reporting of reimbursements for dental care in the MEPS data, and the employer health plans to which each worker is matched in the model, and reported payments for dental services. We imputed coverage for orthodontia based upon coverage data published by the Hay Group from their employer health benefits survey. ${ }^{2}$

Utilization among those who do not have coverage for these services is assumed to increase by 67 percent. This is based upon our estimates of the percentage increase in utilization for all health services estimated above for those who are newly insured. This utilization was subject to the adjustment for the elimination of cost-sharing discussed below.

## 3. Elimination of Cost-sharing

For at least the first two years, the Act generally would have no deductible or co-payment requirements as found in many existing health plans (e.g., $\$ 10$ per visit, $\$ 10$ per prescription etc.). Prior studies have shown that eliminating cost-sharing results in increased utilization of health services. For example, the National Health Insurance experiment data showed that eliminating cost-sharing increased physician utilization by about 31 percent and increased inpatient utilization by about 10 percent. ${ }^{3}$

Another study compared health services utilization in Canada, where there generally is no cost-sharing, with neighboring American states where cost-sharing is common. The study indicated that physician utilization in Canada is about 30 percent higher than in the U.S. ${ }^{4} \mathrm{~A}$ study by the Congressional budget Office (CBO) also showed that health services utilization among Medicare beneficiaries with supplemental coverage for Medicare deductible and copayment amounts (i.e., Medigap) is about 28 percent higher than among those without supplemental coverage. In addition, studies have shown that even among HMOs, eliminating cost-sharing can result in utilization increases ranging from 11 to 30 percent. In addition, there are studies showing that co-payments reduce utilization of needed health services for low-

[^1]income people with a corresponding reduction in health status. These issues are likely addressed in the Act by eliminating co-payments for services.

In this analysis, we assume that utilization of health services would increase for all people who do not currently have first-dollar coverage. For these people, we assume that utilization of physician services would increase by 30 percent and that inpatient hospital utilization would increase by about 10 percent. We simulate no change in utilization for people who already have coverage under a policy that does not have cost-sharing. These include Medi-Cal enrollees, aged people with Medigap coverage and people currently enrolled in HMOs that do not have costsharing.

## 4. Increased Emphasis on Primary Care

The program would encourage each individual to select a primary care provider. Patient visits to physician specialists without referral from a primary care provider would not be covered. (Additional referrals are not required for follow-up visits to the specialist.) This is expected to reduce costs by encouraging people to obtain primary and preventive care. Also, primary care physicians and nurse practitioners typically have lower charges than specialist physicians and typically use fewer expensive diagnostic services. Thus, the emphasis on primary care is likely to reduce costs.

The experience of major HMOs provides examples of how increased reliance on primary care can affect costs. These types of integrated delivery systems typically emphasize primary care as a means of controlling access to specialists and reducing unnecessary tests, resulting in an overall reduction in utilization. Although the available evidence indicates that managed care plans achieve lower costs largely through selective contracting (i.e., volume price discounts), utilization of health services is typically lower than in other types of plans. For example, one study showed that health services utilization in IPA HMOs is about four percent lower than in other types of health planes (IPA HMOs saved an additional 15 percent through selective contracting, which is not relevant to the program's payment system). ${ }^{5}$ The savings are thought to be higher in staff and group model HMO models such as the Kaiser HMO.

For illustrative purposes, we assume that a shift to primary care would result in an overall reduction in utilization of about four percent for all Californians who are not already enrolled in an HMO. This assumption is based upon analyses of the utilization impacts of health plans placing increased emphasis on primary care.

## 5. Home Health Services Utilization

As discussed above, the program is assumed to cover home and community-based health care services for all people with three or more limitations in activities of daily living (ADL). This is over and above recuperative home health services. People with three or more ADLs currently consume about half of all home health services. However, only about 40 percent of these people

[^2]now receive home health care. In this analysis, we assume that, the percentage of people with three or more ADLs using home health services would increase to 80 percent. ${ }^{6}$

We assume that this estimate includes the cost of providing adult day-care services under the program. This is because adult day care can be used as a lower-cost alternative to services provided in the home or a nursing facility.

## B. Drug Formulary

The program would use a prescription drug formulary based upon prices negotiated with pharmaceutical manufacturers. The formulary would be developed within the Office of Health Care Quality by the Chief Medical Officer who would establish a Pharmacy and Therapeutics Committee for this purpose. Under this system, specific drugs are selected for inclusion in the formulary for each type of medical therapy. This would typically include generic substitutes for brand-name drugs, and drugs selected by the state in negotiations with the pharmaceutical manufacturers. Providers would not be permitted to prescribe off-formulary (usually higher cost) medications unless the formulary medication is ineffective or inappropriate for the patient due to side-effects.

## 1. Structure of Formulary

The formulary is designed to enable the state to negotiate deep discounts with drug manufacturers while ultimately maintaining access to all FDA approved drugs. The key to the state's bargaining leverage is a credible threat that a manufacturer's product will not be included in the formulary if they do not negotiate a favorable price. For example, in cases where there are two or more brand-name alternatives suitable for a given medical therapy, the state could select whichever drug is offered at the lowest price. The threat that a manufacturer could be virtually excluded from the entire California market for that drug creates a powerful incentive for manufacturers to negotiate competitive prices.

In many cases, generic substitutes could be chosen over higher cost brand-name alternatives. However, brand-name drug manufacturers may be willing to lower their prices enough so that so that they are included in the formulary. Also, the state would have the option of including all alternative drugs in cases where the price difference is considered to be too small to justify exclusion.

The formulary also enables the state to include drugs on the basis of their effectiveness or other criteria. For example, new "beta-blocker" drugs are regularly introduced to the market that minimize complications and side-effects. However, each new innovation on these drugs is typically more expensive that existing options. Under a formulary, the state could decide to start patients on a lower-cost drug that is generally effective and switched to the higher cost drug only if complications or side-effects develop.

[^3]
## 2. Estimating Potential Savings

Estimating the effect of the formulary and methods of negotiation under the program is difficult due to the diversity of drugs and the complexities of the ways in which prices are currently determined. Figure 3 presents an illustration of the prices for drugs at each stage of the process of drugs moving from manufacturers to customers for various groups of payers. We start with an assumed average wholesale price (AWP) per script of $\$ 50$. This is the cost of the drug to the wholesaler. We then show how these prices are discounted and marked-up as they move from manufacturer to wholesaler, wholesaler to pharmacy and pharmacy to customer. Figure 3, also shows manufacturer rebates to purchasers of their products. ${ }^{7}$

The analysis shows that the price actually paid for drugs varies widely by payer. People without prescription drug coverage pay an average of $\$ 52$ per script in this example, reflecting the fact that individuals have little bargaining leverage with drug manufacturers. Privately insured people pay $\$ 42$ and people in HMOs that purchase directly from the manufacturer pay about $\$ 34$. Medicaid (Medi-Cal in California) pays about $\$ 33$. This reflects a federal law requiring that Medicaid receive rebates from manufacturers equal to the largest discount/rebate provided to any purchaser in the country (the rebate equals about 21 percent in California). In addition, the federal government negotiates separate discounts for the veterans program and other agencies under what is called the "Federal Supply Schedule (FSS)". The drug in this example under the FSS would cost $\$ 24$.

These figures overstate the potential savings from Medicaid and FSS pricing because they do not include pharmacy distribution costs. The FSS includes no allowance for pharmacy distribution because the drugs are distributed directly to patients in federal facilities. Also, the Medicaid price assumes no mark-up for pharmacies, although it does include a $\$ 2.50$ dispensing fee. We have assumed that the pharmacy mark-up and dispensing fees would on average be equal to the average mark-up and dispensing fees in the current market across all payers. When we adjust for these costs, the average price per script would be about $\$ 34$ at the Medicaid payment levels and $\$ 29$ at FSS price levels.

## 3. Drug Price Assumptions

In this analysis, we estimated the savings that California would achieve through bulk purchasing using the savings realized under the current Medicaid programs and the FFS as benchmarks (with pharmacy mark-up and dispensing fees). For example, one possible assumption would be that savings would be comparable to Medi-Cal, which is to say that the Act would obtain prices equal to the largest discounts/rebates currently negotiated for any purchaser in the country. Under this assumption, savings would be about 34.6 percent for the drugs used by people who do not now have drug coverage and about 19.0 percent for the drugs used by people who currently have private drug coverage. (There is a small increase for drugs purchased by the current Medicaid population reflecting the leveling of pharmacy payments across all payers).

[^4]Figure 3
Average Drug Price from Manufacturer to Customer in 2000

|  | $\begin{array}{c}\text { Cash Only } \\ \text { Customers }\end{array}$ |  | $\begin{array}{c}\text { Private } \\ \text { Insurers and } \\ \text { PBMs }\end{array}$ | $\begin{array}{c}\text { Large } \\ \text { HMOs }\end{array}$ | Medi-Cal |
| :--- | :---: | :---: | :---: | :---: | :---: | \(\left.\begin{array}{c}Federal Supply <br>

Schedule (FSS) <br>
c/\end{array}\right]\)
a/Includes private insurers and pharmacy benefits management (PBM) plans, except HMOs that buy directly from manufacturers.
b/Includes HMOs that buy directly from manufacturers.
c/Drugs purchased by the federal government for veterans and other federal agencies.
d/ Assumes average mark-up and dispensing fee in current system.
Source: "Prescription Drug Coverage, Spending, Utilization and Prices: Report to the President," Department of Health and Human Services (HHS), April 2000.

Another alternative is to assume that the negotiated price would be comparable to the FSS schedule, with an allowance for pharmacy mark-up and dispensing fees. This would result in savings ranging from 44.2 percent for drugs now purchased by people without drug coverage to about 12.1 percent for those now served under Medi-Cal. However, it is not clear that manufacturers would be willing to accept the very low amounts under the FSS for all 36 million Californians. This is because the FSS currently applies to only a small number of people in receiving care directly from the a federal program such as the Veterans administration.

Consequently, we have assumed that the drug prices under the Act would be the mid-point between the current Medi-Cal and FSS costs, adjusted for pharmacy mark-up and dispensing fees. This results in savings of 39.1 percent for drugs now purchased by people without drug coverage, 24.1 percent for drugs purchased by people with private coverage and about 4.6 percent for the drugs now purchased through Medicaid. These assumptions are used to estimate the full impact of the prescription drug purchasing model and formulary under the Act.

## C. Durable Medical Equipment Purchasing

The use of centralized purchasing for durable medical equipment could also reduce costs (i.e., wheelchairs, hearing aids etc.). The state would negotiate for volume discounts from the various manufacturers through a process similar to that used for purchasing prescription drugs. Here again, the key to effective price negotiations would be the credibility of the threat that if the manufacturer does not provide a competitive discount, they would loose out on virtually the entire California market.

Therefore a key element of the Act is that medical durable products from higher cost suppliers would not be available to Californians unless they purchase these items themselves. However, the threat that certain equipment might not be covered is expected to cause suppliers to reduce prices to be competitive. This design is likely to give the state substantial leverage in negotiating prices with suppliers and manufacturers. In this analysis, we assume that the savings on durable medical equipment under the program would be similar to the percentage savings assumed for prescription drugs by source of payment above in Figure 3.

## D. Administrative Costs

In this analysis, we estimated savings in administration based upon administrative data available for the state of California and prior Lewin Group studies of the impact of a singlepayer model on administrative costs. The methods used to estimate the administrative savings are presented in detail in Appendix $A$ to this report. ${ }^{8}$ These administrative savings are summarized below.

## 1. Insurer Administration

The Act would extend large-group economies of scale throughout the health care system by covering all individuals under a single insurance mechanism. This would eliminate the costs associated with underwriting, transitions in coverage, and maintaining the administratively cumbersome linkage between employers and insurers.

We assumed that the cost of insurer administration is similar to administrative costs under the Medicare program (modified to reflect administrative simplification), which can be thought of as a single sources insurer for the elderly. Medicare administrative costs are equal to about 1.8

[^5]percent of covered benefits compared with an average of about 14 percent under private insurance arrangements. We estimated the amount of insurer administrative savings based upon the difference between total insurer and government program administrative costs under the current system (see Appendix C) and estimated administrative costs under the Act (private insurer administrative costs are assumed to continue at their current levels for services covered by employers that are not covered by the Act such as orthodontia).

## 2. Physician Administration

The Act would substantially reduce claims filing costs for physicians by standardizing the means of reimbursement through a single insurer and by providing full reimbursement through a single source using a standardized electronic claims-filling process. Standardization of coverage would also reduce physician costs related to adjudication of claims and negotiation of selective-contracting arrangements.

We estimated administrative savings for physicians using data provided by the Medical Group Management Association (MGMA) which provides administrative cost data by function for physician practices. We used these data to identify the categories of administration that are attributed to the administrative functions that would be eliminated or simplified under the Act.

## 3. Hospital Administration

The Act would all but eliminate hospital administrative costs associated with filing claims, except for patients who live out-of-state. This is because under the Act, hospitals are given an annual operating budget covering all services provided by the hospital. This eliminates the costs associated with claims filing, bill generation, collections of unpaid amounts, service classification such as diagnostic related groups (DRGs) and price negotiations with insurers and other selective contracting expenses.

Our estimates of the savings in hospital administration are based upon detailed hospital spending data for California hospitals reported in the OSHPD data. These data show costs for patient care hospital administration and other cost centers. We supplemented these data with an earlier Lewin Group study of the impact of a single-payer program onhospital administrative systems and costs.

## E. Workers Compensation Program Costs

As discussed above, the medical component of the workers compensation program would continue to operate separate from the Act. Consequently, we assume no change in spending under the medical component of the workers compensation program.

## F. Health System Fraud

As discussed above, we assume that an Inspector General is appointed who would be charged with investigating fraud under the Act. The Inspector General would have the power to subpoena business and financial records of individual providers and organizations receiving reimbursement through the Act. This is a significant step because current private insurance plans do not have subpoena powers to investigate possible instances of fraud. By placing all Californians under a system that is investigated by an agency with subpoena powers, it becomes more likely that fraud would be detected and/or discouraged.

The literature on this subject indicates that about five percent of all health claims are "inaccurate." ${ }^{9}$ In this study, we assumed that fraud is reduced by about 20 percent among privately insured people who become covered under the Act for all services except hospital care. We assume that the savings would apply only to people who currently have private coverage because the state and federal governments already have subpoena powers for current government programs. We also except hospital care from the savings because hospitals would be covered under annual operating budgets and there would no-longer be separate filing of claims for hospital care. ${ }^{10}$

## G. Employer Response

There are two major responses that employers could have to the program. These are wage changes in response to changes in employer costs, and employer coverage of services not covered under the Act.

## 1. Wage Effects

We assume that changes in employer costs for health benefits are passed-on to workers in the form of changes in wages. Thus, increases in employer costs are assumed to be passed-on to workers in the form of reduced wages while, decreases in health benefits expenses are passedback to employees in the form of increased wages. We assume that this wage adjustment would occur among government employers as well, assuming that government compensation packages over-time would be adjusted to remain competitive in the labor markets. Economists expect these wage adjustments to occur in both unionized and non-unionized workplaces.

We assume that this pass-through occurs among both insuring and non-insuring firms whose labor costs are affected by the proposal. These include changes in health benefits costs due to the elimination of employer coverage and payroll taxes imposed as part of the program. We automatically adjust the wage pass-through amount to reflect the fact that changes in wage levels automatically change the amount of the employer share of the payroll taxes for social security and Medicare, and the Act.

[^6]Our pass-through assumption is based upon the economic principle that the total value of employee compensation, which includes wages, employer payroll taxes health benefits and other benefits, is determined in the labor markets. Thus, for example, a reduction in the cost of one form of compensation would cause wages and other compensation to be bid up in the labor markets resulting in an eventual pass-through of these savings to the worker. Similarly, increases in compensation costs would lead to reductions in wage growth or other benefits to reflect the change in costs.

There is considerable agreement among economists that these wage adjustments would occur in response to changes in employer benefits costs. ${ }^{11}$ However, there is disagreement over the period of time over-which these adjustments would occur. It is likely that these adjustments would often take the form of reduced wage growth over-time. However, the full amount of the wage pass-through could take two or more years to fully materialize. For illustrative purposes, we assume that these wage effects occur in the full the first year of the program. ${ }^{12}$

We present our wage change estimates on an after-tax basis. We do this by calculating the change in taxes for each family based upon the amount of the change in earnings and the marginal tax rates estimated for families in the MEPS/HBSM household database. Household wage changes are then adjusted to reflect these tax effects. To obtain the after-tax wage adjustment, the model calculates the changes in income and payroll tax revenues to the federal and state governments for these wage adjustment amounts.

We assume that changes in employer costs for retiree health benefits would not be passedthrough to workers as changes in wages. This is because retiree benefits costs are related to prior employer commitments that have little impact on the current labor markets. Thus, savings in retiree benefits are assumed to accrue to the employer. While these changes in employer profits could affect investor incomes, we do not model these effects here.

## 2. Employer Supplemental Coverage

Employers are assumed to provide supplemental coverage for services that they now cover under their health plans which would not be covered under the Act. These services include primarily certain dental and orthodontia services.

[^7]
## V. ESTIMATED COST IMPACTS

In this section, we present estimates of health spending for major stakeholder groups under the Act, assuming that the program is fully implemented in 2006. These estimates apply to the Act as described above. We also provide estimates of the program's impact on state-wide health spending in California, and the impact on health spending for Californians by the state and local governments, the federal government, private employers and families.

Our analysis is presented in the following sections:

- Impact on statewide health spending;
- Program costs and revenues;
- Impact on State and Local Government spending;
- Impact on Federal Health Spending in California;
- Employer impacts; and
- Impact on Household health spending.


## A. Impact on Statewide Health Spending

Under current law, total health spending in California for all health services (including longterm care) is projected to reach about $\$ 184.2$ billion in 2006. This includes spending for all health services paid by all public and private payers, and all out-of-pocket payments by California residents for health services. We estimate that in 2006, total health spending in the state would decline by about $\$ 8.0$ billion under the Act. This is because the savings from administrative simplification and bulk purchasing of drugs and medical durables would be greater that the increases in utilization of health services resulting from expanded access under the program.

Provider payment levels on average would be about equal to current average payment levels for services across all payers in the first year of the program. ${ }^{13}$ The program's impact on health spending in California is summarized in Figure 4.

## 1. Changes in Health Services Utilization

There would be an increase in health services utilization for newly insured people (i.e., our estimate of 4.7 million uninsured Californians in 2006). We assume that under a program of universal insurance coverage, use of health services by those who would otherwise have been uninsured would adjust to levels reported by insured people with similar age, sex, income and self-reported health status characteristics. Based on this assumption, we estimate that the net increase in health spending for previously uninsured people would be about $\$ 5.9$ billion (Figure 4). This is an estimate of the net change in utilization for this group which reflects reduced hospitalizations for preventable conditions offset by increased utilization of preventive care and increased use of elective procedures.

[^8]Figure 4
Changes in State-Wide Health Spending Under The The Act in 2006

|  | Amount (in millions) |
| :---: | :---: |
| Health Spending in 2006 Under Current Law | \$184,234 ${ }^{\text {a }}$ |
| Increases in Utilization |  |
| Utilization Change for Uninsured | \$5,872 |
| Change for "Underinsured" | \$4,450 |
| Prescription Drugs \$586 |  |
| Dental Care \$1,323 |  |
| Orthodontia \$695 |  |
| Medical Durables \$870 |  |
| Mental Health \$976 |  |
| Home Health Services | \$1,476 |
| Elimination of Cost Sharing | \$9,472 |
| Spending Offsets |  |
| Increased Primary Care Emphasis | $(\$ 3,408)$ |
| Bulk Purchasing | $(\$ 5,204)$ |
| Prescription Drugs \$4,418 |  |
| Durable Medical Equipment $\quad \$ 786$ |  |
| Administrative Costs | $(\$ 19,860)$ |
| Insurer Administration \$9,686 |  |
| Hospital Administration \$3,560 |  |
| Physician Administration \$6,614 |  |
| Reduced Fraud (State Subpoena Powers) | (\$793) |
| Net Change in State-Wide Health Spending |  |
| Net Change | $(\$ 7,995)$ |

a/Excludes public health and research.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
There also would be an increase in utilization for many of those who would have had insurance under current law. Many of the insured are in health plans that do not now cover some of the services that would be covered under the Act that we analyzed such as prescription drugs, eyeglasses, medical devices (e.g., hearing aids), mental health services, dental care and orthodontia. We assume that under the program, utilization of these services for currently insured people who are not now covered for these services would increase to levels reported by people with such coverage with similar age, sex, income and health status characteristics. The net increase in spending for these "underinsured people" would be $\$ 4.5$ billion in 2006. There also would be an increase in utilization of home and community based services of about $\$ 1.5$ billion.

We also estimate that utilization of hospital and physician services would increase due to the elimination of patient cost-sharing (i.e., deductibles, co-payments etc.). Based upon a review of the literature on the relationship between cost-sharing and utilization, we estimate that the utilization increase for these services would cost about $\$ 9.5$ billion (the utilization increase is estimated only for people who do not already have first-dollar coverage).

However, this increase in utilization would be partly offset by the increased emphasis that the program would place on primary care. Specifically, the program would not cover non-
emergency services provided by a physician specialist unless the patient first obtains a referral from a primary care physician. This is designed to promote prevention and eliminate avoidable health services utilization. We estimate that the savings resulting from increased use of primary care would be about $\$ 3.4$ billion.

## 2. Bulk Purchasing Impacts

Under the Act that we analyzed, prescription drugs and durable medical equipment would be provided through a formulary. Under this model, the state selects the drugs to be included in the formulary for each medical condition based upon price negotiations with pharmaceutical manufacturers. Physicians would not be permitted to use off-formulary alternatives unless the formulary medication is ineffective or inappropriate (e.g., significant side-effects) as determined according to guidelines established by the Chief Medical Officer. This approach is designed to channel utilization to the lowest cost drugs, creating powerful incentives for pharmaceutical manufacturers to get their drugs into the formulary by negotiating lower prices. A similar model would be used for the purchase of durable medical equipment. Total savings from the use of this formulary-based bulk purchasing model would be about $\$ 5.2$ billion in 2006.

These savings estimates are based upon a review of the discounts and rebates that have been negotiated with pharmaceutical manufacturers. For example, Medi-Cal currently receives rebates of about 21 percent for prescription drugs, and certain federal agencies have negotiated discounts averaging about 40 percent under what is called the "Federal Supply Schedule (FSS)." In this analysis, we assumed that by aggregating the state's purchasing leverage under a single program, the state would see savings averaging between what Medi-Cal now pays for drugs and the amounts the federal government now negotiates under the FSS. As shown above in Figure 3 (Section IV), savings for the drugs are assumed to vary with current source of coverage as follows:

| Self Pay | $39.4 \%$ |
| :--- | ---: |
| Privately Insured Patients | $24.5 \%$ |
| Large HMOs | $7.4 \%$ |
| Medicaid | $4.6 \%$ |

## 3. Administrative Savings

We estimate that the Act would reduce administrative costs by about $\$ 19.9$ billion (Figure 5) . The Act would extend large-group economies of scale throughout the health care system by covering all individuals under a single insurance mechanism. We estimate that insurer administrative costs - including public programs and private insurance - would be reduced by about $\$ 9.7$ billion under the program.

Figure 5
Changes in Administrative Costs for Insurance and Health Care Providers Under the Act in California for 2006 (in millions)


Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).
The program would also significantly reduce administrative costs for providers. Administration in hospitals would be reduced by eliminating claims filing for hospital care and replacing it with annual operating budgets for each hospital that covers all of the services provided by the hospital (except services for non-California residents). The program would also reduce physician costs by standardizing coverage, reducing claims adjudication costs and eliminating the cost of negotiating selective-contracting arrangements. We estimate that hospital administrative costs would be reduced by $\$ 3.6$ billion and physician administrative costs would be reduced by $\$ 6.6$ billion. (The methods used to estimate these administrative savings are presented in Appendix A.)

We also estimate a reduction in costs due to improved fraud detection. This derives from the fact that, unlike private insurers, the state would have the right to subpoena provider records. This is expected to strengthen fraud detection for the population currently covered under private health plans with a resulting deterrent effect. We estimate total savings of about $\$ 765$ million in 2006.

## B. Program Costs and Revenues

Figure 6 presents our estimates of program costs under the Act assuming it is fully implemented in 2006. This includes the cost of all benefits payments and the cost of administering the program. Total expenditures under the program would be about $\$ 166.8$ billion. Of this, about $\$ 72.1$ billion would be paid for by redirecting current government funding for health benefits programs to the Act. The state would need to collect an additional $\$ 94.7$ billion in tax revenues to pay for program operations in 2006. These tax revenues are required to replace the premiums now paid by employers and individuals under the current system.

As discussed above, we assume that the program would be designed so that in the first year of the program, provider payment levels would be equal to the average payment levels for covered services in the current system (i.e., averaging across Medicare, Medi-Cal, private insurance, etc.). Based on these assumptions, total benefits payments for health services under the program would be about $\$ 178.0$ billion in 2006.

However, we assume that these provider payment rates would be reduced by about $\$ 12.9$ billion to reflect the elimination of uncompensated care and provider savings in administration. These include the following adjustments:

- Uncompensated Care Cost Adjustment: Under the current system, uncompensated care is paid for by increasing the amounts changed to insured people through a process known as "cost-shifting." This cost-shift, which is imbedded in current provider payment levels for insured people (primarily private payments), is no longer necessary under the program because all Californians will be covered under the Act. Thus, we assume that provider payments are adjusted to reflect the elimination of the need for cost-shifting under a program of universal health insurance coverage; and
- Provider Administrative Costs: We also assume that the portion of payment levels currently used to cover provider administration would be redirected to financing the Act. This includes savings to hospitals of about $\$ 3.6$ billion and savings to physicians of about $\$ 6.6$ billion. This adjustment is important because the savings in provider administration do not translate to savings for the consumer unless provider payment levels are reduced by commensurate amounts. ${ }^{14}$

Total savings to the program from bulk purchasing of prescription drugs (i.e., through the formulary described above) and durable medical equipment would be about $\$ 5.2$ billion.

Program costs would include the cost of continuing the Medi-Cal program to cover services that are not covered under the Act, which includes primarily nursing home benefits. The total cost of this part of the program would be about $\$ 4.0$ billion in 2006. Total administrative costs for the Act would be $\$ 2.9$ billion in 2006, which is equal to about 1.8 percent of program costs. After accounting for these costs and adjustments, total program cost would be about $\$ 166.8$ billion in 2006.

[^9]Figure 6
Sources and Uses of Funds Under a
The Act in 2006
(in millions)

| Uses of Funds |  | Sources of Funds |  |
| :---: | :---: | :---: | :---: |
| Benefits Payments at Current Reimbursement Rates Acute Care \$168,278 Home Health Care $\$ 7,380^{\text {a/ }}$ | \$178,049 | Medicare Benefits \$35,633 Administration \$1,033 | \$36,666 |
| Other Institutionalized \$2,391 |  | TRICARE/Military/VA and Federal Clinics | \$1,702 |
| Bulk Purchasing Savings Prescription Drugs \$4,418 Durable Medical Equipment \$786 | $(\$ 5,204)$ | Medi-Cal/Healthy Families State Share \$12,778 Federal Share \$15,101 | \$27,879 |
| Adjustments to Provider Payment Rates Allowance for Reduced Cost Shifting \$2,759 Hospital Administrative Savings \$3,560 Physician Administrative Savings \$6,614 | (\$12,933) | Other State Programs Developmentally Disabled \$950 <br> Department of Mental Health \$1,441 | \$2,391 |
| Continued Medi-Cal  <br> Nursing Home $\$ 3,662$ <br> Administration $\$ 304$ | \$3,966 | Safety-Net Savings <br> State Funds \$2,300 <br> County Funds \$1,200 | \$3,500 |
| The Act Administration | \$2,877 | Total Intergovernmental Transfers | \$72,138 |
| Total Spending | \$166,755 | Revenues Required to Fund Program |  |
|  |  | Payroll Tax ${ }^{\text {d }}$ <br> Employer Share (8.17 percent) \$55,666 <br> Employee Share (3.78 percent) \$25,930 | \$81,597 |
|  |  | Business Income Tax (11.95 percent) ${ }^{\text {d }}$ | \$8,250 |
|  |  | Tax on Non-earned Income (3.5 percent) ${ }^{\text {d/ }}$ | \$3,458 |
|  |  | Surcharge on Income over \$200,000 (1 percent) | \$1,312 |
|  |  | Net New Revenue Requirement | \$94,617 |
| Total Program | \$166,755 | Total Sources of Funds | \$166,755 |

a/ Includes current Medi-Cal spending for home health, home and community based services (including amounts reported as "other personal care") ( $\$ 3,801$ million), other home health spending under current law ( $\$ 2,103$ million), and the estimated increase in home health utilization under the proposal (i.e., $\$ 1,476$ million).
b/ Includes cost of maintaining benefits for Medi-Cal eligible people.
c/ Includes amounts from general revenues not otherwise counted with the state Medi-Cal/HF match.
d/ These taxes have a taxable income floor of $\$ 7,000$ and a taxable income ceiling of $\$ 200,000$.
Source: Lewin Group estimates.

The program would receive funds that otherwise would have been used to pay for health care provided under current public programs. These include state and federal funds for Medi-Cal ( $\$ 27.9$ billion), federal funding for Medicare ( $\$ 36.7$ billion) and TRICARE/military/VA beneficiaries and federal funding for clinics ( $\$ 1.7$ billion), state funding for the mentally ill and developmentally disabled ( $\$ 2.4$ billion), and state and county funding for safety-net programs ( $\$ 3.5$ billion). Total funding from these programs would be about $\$ 72.1$ billion in 2006.

The remainder of the program (\$94.7 billion) would be financed with new revenues, including a payroll tax that replaces existing premium payments for ESI, and individual payments for health insurance premiums. In 2006, revenues from the payroll tax (i.e., 8.17 percent for employers and 3.78 percent for workers) would be about $\$ 81.6$ billion. Business tax revenues for the self-employed would be about $\$ 8.2$ billion (i.e., 11.95 percent of net business income). The tax on unearned income (e.g., investment income, taxable pensions etc.) would raise about $\$ 3.5$ billion (i.e., 3.5 percent) with the surtax on incomes over $\$ 200,000$ (i.e., 1.0 percent) raising about $\$ 1.3$ billion. (All of these taxes have a taxable income floor of $\$ 7,000$ and a taxable income ceiling of $\$ 200,000$, except the surtax on incomes over $\$ 200,000$.)

## C. Impact on State and Local Governments

We estimate that state and local governments in California would see a net reduction in health spending under the Act that we analyzed of about $\$ 900$ million. As discussed above, state and local government funding for health benefits programs in the first year would be simply transferred to the program so that there is no net change in state health spending for those programs in 2006. The estimated savings of $\$ 900$ million results primarily from the fact that the payroll taxes that would be paid for state and local government workers under the Act would be less than what state and local governments will pay for worker and retiree health benefits under current law in that year.

California state and local governments will spend about $\$ 18.7$ billion on health services under public programs in 2006 (Figure 7). This includes the state share of spending under Medi-Cal and Healthy Families ( $\$ 12.8$ billion), state and local government funding for safety-net programs ( $\$ 3.5$ billion), and funding for services provided to the mentally and physically disabled ( $\$ 2.4$ billion). These funds would be transferred to the program, which then assumes full responsibility for providing covered services to beneficiaries of these programs along with all other California residents. ${ }^{15}$

State and local governments will also have about $\$ 10.6$ billion in spending for health benefits for workers ( $\$ 9.5$ billion) and retirees ( $\$ 1.1$ billion) under current law in 2006. Payments to private insurers for this coverage would be eliminated the under the Act. Instead, the state would pay the payroll tax (i.e., 8.17 percent) which would amount to about $\$ 8.0$ billion for state and local workers in 2006. This would be a net savings to state and local governments of about $\$ 2.6$ billion.

As discussed above, we assume that a portion of these employer savings in health benefits costs for workers will be passed back to workers in the form of higher wages over time, which we

[^10]estimate to be about $\$ 1.3$ billion. However, as discussed above, we assume no wage adjustment for savings in retiree benefits costs. Thus, we estimate net savings to state and local governments for employee and retiree health benefits of about $\$ 1.4$ billion after accounting for the assumed wage adjustments.

These savings would be partly offset by a reduction in state income tax revenues of about $\$ 408$ million due to an overall reduction in wages in the California economy, as employers adjust wage levels to reflect net increases in employer health benefits costs under the Act. ${ }^{16}$ This reduces the net savings to the state the Act to about $\$ 924$ million in 2006.

Figure 7
Change in Health Spending for State and Local Governments Under the Act in 2006 (in millions)

|  | State and Local Health Spending Under Current Law | State and Local <br> Health Spending Under the Act | Change in State and Local Health Spending Under the Act |
| :---: | :---: | :---: | :---: |
| State and Local Government Funded Health Coverage |  |  |  |
| State Funding for Medi-Cal and Healthy Families | \$12,778 | -- | $(\$ 12,778)$ |
| State and Local Safety-net Programs | \$3,500 | -- | $(\$ 3,500)$ |
| Funding for Other State Programs | \$2,391 | -- | $(\$ 2,391)$ |
| Transfer to Program | -- | \$18,669 | \$18,669 |
| Total Public Programs | \$18,669 | \$18,669 | 0 |
| Spending for State and Local Workers and Retirees |  |  |  |
| Health Benefits for State and Local Government Workers and Dependents | \$9,528 | -- | $(\$ 9,528)$ |
| Health Benefits for State and Local Government Retirees | \$1,096 | -- | $(\$ 1,096)$ |
| Program Payroll Tax Payments for State and Local Government Workers (i.e., 8.17 percent) | -- | \$7,957 | \$7,957 |
| Wage Effect Adjustment to Worker Wages | -- | \$1,335 | \$1,335 |
| Total State and Local Worker/Retiree Benefits | \$10,624 | \$9,292 | (\$1,332) |
| Loss of State Tax Revenues Due to Wage Effects The Act ${ }^{\text {al }}$ |  |  |  |
| Loss of State Income Tax Revenues | -- | (\$408) | (\$408) |
| Net Impact on State and Local Government Health Spending for Californians |  |  |  |
| Net (Savings) | \$29,293 | \$28,369 | (\$924) |

a/ Reductions in tax revenues are counted as a cost of the Act to state and local governments.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
As discussed below, we estimate that these savings to state and local governments would grow in subsequent years of the program. The main reason for this is that state and local government fund transfers for current programs would be indexed to the allowable rate of growth in spending the Act (assumed to be state GDP growth), which is lower than the rate of growth in state and local government spending under current law.

[^11]
## D. Impact on Federal Health Expenditures in California

The federal government will spend about $\$ 56.3$ billion on health benefits for Californians in 2006 under current law. This includes about $\$ 36.7$ billion in funding for Medicare, $\$ 1.7$ billion in funding for TRICARE/Military/VA and federal clinics, and about $\$ 15.1$ billion in Medicaid funding. In addition, the federal government will spend about $\$ 2.9$ billion on health benefits for federal workers and retirees living in California.

Total federal health spending for Californians would be reduced by about $\$ 315$ million under the Act that we analyzed (Figure 8). This is primarily due to a net reduction in health benefits costs for federal workers in the state, and a net increase in federal income and payroll tax revenues as California employers adjust wages in response to changes in employer costs under the Act.

Figure 8
Change in Health Spending for the Federal Government Under The Act in 2006 (in millions)

|  | Federal Spending Under Current Law | Federal Spending Under the Act | Change in Federal Spending Under the Act |
| :---: | :---: | :---: | :---: |
| Federally Funded Health Coverage |  |  |  |
| Federal Funding for Medi-Cal and Healthy Families | \$15,101 | -- | $(\$ 15,101)$ |
| Medicare Funding for Californians | \$36,666 | -- | $(\$ 36,666)$ |
| TRICARE/Military/VA and other Federal Funds for Californians | \$1,702 | -- | (\$1,702) |
| Transfer to Program | -- | \$53,469 | \$53,469 |
| Total Public Programs | \$53,469 | \$53,469 | 0 |
| Spending for Federal Workers and Retirees |  |  |  |
| Health Benefits for Federal Workers and Dependents | \$2,402 | -- | $(\$ 2,402)$ |
| Health Benefits for Federal Retirees | \$465 | -- | (\$465) |
| Program Payroll Tax Payments for Federal Workers (i.e., 8.17 percent) | -- | \$2,315 | \$2,315 |
| Wage Effect Adjustment to Worker Wages | -- | 74 | 74 |
| Total for Federal Worker/Retiree Benefits | \$2,867 | \$2,389 | (\$478) |
| Changes in Federal Tax Revenues Due to Wage Effects The Act ${ }^{\text {a/ }}$ |  |  |  |
| Loss of Federal Income Taxes | -- | $(\$ 1,571)$ | $(\$ 1,571)$ |
| Increase in Social Security/Medicare Payroll Tax Revenues | -- | \$1,408 | \$1,408 |
| Total Change in Federal Tax Revenues | -- | (\$163) | (\$163) |
| Net Impact on Federal Government Health Spending for Californians |  |  |  |
| Net (Savings) | \$56,336 | \$56,021 | (\$315) |

a/ Reductions in tax revenues are counted as an increase in federal health spending. Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

The federal spending under health benefits programs for Californians will be about $\$ 53.5$ billion in 2006 (Figure 8). Under the Act, the federal government transfers the full amount of these funds to the program, which then assumes full responsibility for covering health benefits for beneficiaries of these programs. Consequently, there is no net change in federal costs under
these programs in 2006. The federal contribution to the program would increase each year based upon the national growth rate in spending for these programs so that the program is budget neutral to the federal government over time.

We estimate that the federal government will provide about $\$ 2.9$ billion in health benefits to federal workers, retirees and their dependents under current law in 2006. Payments to private insurance would be eliminated under the program and replaced with the payroll tax created under the Act (i.e., 8.17 percent), which would be about $\$ 2.3$ billion for federal workers in California in that year. This would result in a net-savings in federal worker health benefits costs, which we assume would be partly offset by an increase in wages of about $\$ 74$ million to reflect these reductions in employee benefits costs (i.e., wage effects). Total net savings for federal worker and retiree health benefits would be about $\$ 478$ million in 2006 when wage adjustments are included.

The federal government would see a net reduction in tax revenues for Californians as employers (both public and private) adjust wages in response to a net increase in employer health care costs under the Act. ${ }^{17}$ We estimate that these wage adjustments would lead to a reduction in federal income tax revenues of about $\$ 1.6$ billion, while Social Security and Medicare payroll tax revenues would actually increase by about $\$ 1.4$ billion. The reason for this is that the increases in employer costs under the Act would tend to be concentrated among more highly compensated workers who face higher marginal tax rates under the personal income tax. By contrast, the reductions in employer spending tend to be concentrated among less highly compensated workers where social security payroll tax payments comprise a greater percentage of overall federal tax payments for workers. After accounting for these shifts, there would be a net reduction in federal tax revenues of about $\$ 163$ million.

The net effect of these changes would be a savings of about $\$ 315$ million to the federal government under the Act. This is composed of savings in federal worker and retiree benefits of $\$ 478$ million and a net reduction in tax revenues of about $\$ 163$ million, which we count as an increase in to federal health spending.

## E. Private Employer Impacts

Private employer health spending will reach $\$ 49.6$ billion in 2006 . This includes all expenditures for ESI less employee premium contributions. This includes $\$ 46.8$ billion in spending for workers and dependents, and about $\$ 2.8$ billion in spending for retirees (Figure 9). These estimates include ESI costs for all privately insured wage and salaried workers and the selfemployed. This estimate also includes costs for firms affected by SB 2 in 2006. ${ }^{18}$

## 1. Employer Health Spending for Insuring and Non-insuring Firms

Under the Act that we analyzed, total statewide private employer spending for health benefits would be about $\$ 1.5$ billion more than under current law in 2006. Employer spending for health benefits under current law ( $\$ 49.6$ billion) would be replaced with a payroll tax of 8.17 percent

[^12]raising about $\$ 51.1$ billion from private employers in 2006. However, the impact of the program on employer spending would vary with the amount the employer now pays for worker health benefits.

For example, health spending for employers who now offer coverage would decline from the current law level of $\$ 49.6$ billion to about $\$ 41.7$ billion in payroll taxes under the Act, which is a savings of about 16 percent. This reflects the taxes paid on payroll for workers who currently are not covered under the employer's plan. Total payroll tax payments in firms that do not now offer insurance would be about $\$ 9.4$ billion in 2006.

Figure 9
Private Employer Health Spending for Workers and Retirees Under Current Law and the Act in 2006
(in millions) ${ }^{\text {a/b/ } / 2}$

| Private Employer <br> Health Spending <br> Under Current <br> Law | Private Employer <br> Health Spending <br> Under the Act | Change in <br> Private <br> Employer Health <br> Spending Under <br> the Act |
| :---: | :---: | :---: |


| Private Employers Who Currently Offer Insurance in 2006 |  |  |  |
| :---: | :---: | :---: | :---: |
| Worker and Dependent Benefits | \$46,837 | \$51 ${ }^{\text {c }}$ | (\$46,786) |
| Retiree Benefits | \$2,799 | -- d/ | $(\$ 2,799)$ |
| Payroll Tax (8.17 percent) | -- | \$41,654 | \$41,654 |
| Total Spending | \$49,636 | \$41,705 | $(\$ 7,931)$ |
| Private Employers Who Do Not Currently Offer Health Insurance in 2006 |  |  |  |
| Worker and Dependent Benefits | -- | -- |  |
| Retiree Benefits | -- | -- | -- |
| Payroll Tax (8.17 percent) | -- | \$9,396 | \$9,396 |
| Total Spending | -- | \$9,396 | \$9,396 |
| All Private Employers in 2006 |  |  |  |
| Worker and Dependent Benefits | \$46,837 | $51^{\text {c/ }}$ | (\$46,786) |
| Retiree Benefits | \$2,799 | -- d/ | (\$2,799) |
| Payroll Tax (8.17 percent) | -- | \$51,050 | \$51,050 |
| Total Spending | \$49,636 | \$51,101 | \$1,465 |

a/ Includes employer health benefits expenses less the employee contribution amount.
b/ All figures include hourly and salaried workers and the self-employed. Payroll taxes for the selfemployed in this table include the share of the payroll tax they would pay if they were an employee ( 8.17 percent). The remainder of the self-employed payroll tax ( 3.78 percent) is counted as a family tax payment below in the household impacts analysis.
c/ Employers are assumed to continue to provide coverage for services now covered by employers that are not covered under the Act. This is the estimated cost to the employer of continuing coverage for these services.
d/ Nearly all retiree benefits would become covered under the Act.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## 2. Impacts by Firm Size and Industry

Private employers that now offer insurance will spend about $\$ 4,723$ per worker in 2006 under current law (Figure 10). This includes all employer health spending for workers, dependents and retirees -- less premium contributions from participating workers -- divided over the total number of workers in the firm including both insured and noninsured workers. ${ }^{19}$ Average spending per worker for currently insuring firms would actually decline by an average of about $\$ 775$ per worker under the Act to about \$3,947 per worker in 2006.

Firms that do not now offer coverage would also pay the payroll tax. The average cost per worker in these firms would be about $\$ 2,290$.

Figure 10

## Change in Average Employer Health Spending Per Worker in California by Firm Size and Industry Under the Act in $2006{ }^{\text {a/ }}$

|  | Firms that Now Offer Insurance ${ }^{\text {b/ }}$ |  |  | Firms Not Now Offering Insurance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Spending per Worker Under Current Law in 2006 | Change in Spending per Worker Under the Act in 2006 | Spending per Worker Under the Act in 2006 | Spending per Worker Under Current Law in 2006 | Change In Spending per Worker Under the Act in 2006 | Spending per Worker Under the Act in 2006 |
| Firm Size |  |  |  |  |  |  |
| Under 10 Workers | \$5,864 | $(\$ 1,400)$ | \$4,464 | -- | \$2,557 | \$2,557 |
| 10-24 Workers | \$4,363 | (\$311) | \$4,052 | -- | \$2,462 | \$2,462 |
| 25-99 Workers | \$3,272 | \$379 | \$3,651 | -- | \$1,522 | \$1,522 |
| 100-499 Workers | \$4,079 | (\$85) | \$3,994 | -- | \$1,708 | \$1,708 |
| 500 + Workers | \$5,503 | $(\$ 1,978)$ | \$3,525 | -- | \$1,807 | \$1,807 |
| Industry ${ }^{\text {c }}$ |  |  |  |  |  |  |
| Construction | \$3,605 | (\$30) | \$3,575 | -- | \$3,083 | \$3,083 |
| Manufacturing | \$6,462 | $(\$ 3,027)$ | \$3,435 | -- | \$2,205 | \$2,205 |
| Transportation | \$8,304 | $(\$ 4,576)$ | \$3,728 | -- | \$2,118 | \$2,118 |
| Wholesale Trade | \$3,469 | \$212 | \$3,681 | -- | \$1,977 | \$1,977 |
| Retail Trade | \$3,487 | $(\$ 1,043)$ | \$2,444 | -- | \$1,052 | \$1,052 |
| Services | \$3,933 | \$98 | \$4,031 | -- | \$2,611 | \$2,611 |
| Finance | \$4,840 | (\$742) | \$4,098 | -- | \$3,143 | \$3,143 |
| All Private Firms |  |  |  |  |  |  |
| All Private Firms | \$4,723 | (\$775) | \$3,947 | -- | \$2,290 | \$2,290 |

a/ All figures include hourly and salaried workers and the self-employed. Payroll taxes for the self-
employed in this table include the share of the payroll tax they would pay if they were an employee (8.17 percent). The remainder of the self-employed payroll tax ( 3.78 percent) is counted as a family tax payment below in the household impacts analysis.
b/ Includes the change in total employer spending for health insurance, including retiree costs, divided over the total number of active workers in the firm including both participating and non-participating workers.
c/ Excludes industries where employer data were unavailable.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

[^13]Among firms that now offer coverage, there would on average be net savings in all industries examined except wholesale trade and services. Savings would average $\$ 3,027$ per worker in manufacturing and $\$ 4,576$ per worker in the transportation industry. This reflects the fact that these industries already tend to provide extensive health benefits. It also reflects the fact that these industries currently cover many retirees who would no-longer require coverage once they become covered under the comprehensive benefits package as specified in the Act.

Costs would increase by an average of about $\$ 212$ per worker among insuring firms in the wholesale trade industry and about $\$ 98$ per worker in the services industry. This is largely because many of these firms currently exclude a substantial portion of their workforce from the plans they now provide, and because they currently require larger premium contributions from workers. Consequently, the payroll tax payments under the Act would tend to be higher than current employer health spending in these industries.

The savings under the Act among firms that now offer coverage would be concentrated among the smallest firms and the largest firms (Figure 11). There would be savings of about $\$ 1,400$ per worker for currently insuring firms with less than 10 workers, which reflects the high cost of health insurance for small groups under current law. Insuring firms with 500 or more workers would see savings averaging about $\$ 1,978$ per worker. Savings would tend to be greatest in larger firms because these employers typically provide more comprehensive coverage than smaller firms. Also, large firms account for most of the retirees who would now be covered under the Act.

Figure 11
Change in Private Employer Health Spending Per Worker by Firm Size and Current Insuring Status Under the Act in 2006: Before Wage Effects


## Number of Employees

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

The Act would on average result in savings in all firm size groups except those with 25 to 99 workers. Costs would increase by an average of about $\$ 379$ per worker for this group, reflecting the fact that many employers in this firm size group do not cover all of their workers, and many contribute less to the premium than do other insuring employers. Insuring firms with 25 to 99 workers on average cover about 79 percent of their workers and pay an average of 71 percent of the premium. Averaging across all firm size groups, insuring firms cover about 89 percent of their workers and pay about 76 percent of the premium. ${ }^{20}$ Consequently, the payroll tax that insuring firms with 25 to 99 workers would pay for all of their workers would on average be greater than what they now spend on health benefits. The average percentage of workers covered and the average premium amount paid by the employer is presented below for insuring employers by firm size.

| Firm Size | Paid By Employer | Covered By Employer |
| :---: | :---: | :---: |
| Under 10 workers | 91\% | 82\% |
| 10 To 24 workers | 87\% | 76\% |
| 25 to 99 workers | 79\% | 71\% |
| 100 to 499 workers | 84\% | 77\% |
| 500 or more workers | 92\% | 76\% |
| All insuring firms | 89\% | 76\% |

Savings among insuring firms would be greatest for those that currently cover the majority of their workforce. For example, as shown in Figure 12, firms that currently cover 80 percent or more of their workers would on average see savings in all firm size groups including those with 25 to 99 workers. Average savings per worker in firms that currently cover 80 percent or more of their workforce would average about $\$ 2,186$ per worker, compared with average $\$ 775$ per worker for all insuring firms (as shown above in Figure 11).

Figure 12
Change in Employer Costs Per Worker For Insuring Firms Currently Covering 80 Percent or More of Their Workers by Firm Size Under the Act


Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

[^14]
## 3. Employer Savings After Wage Effects

Empirical evidence indicates that employers are likely to pass on much of the increase in employer costs to employees in the form of reduced wages or lost jobs. ${ }^{21}$ Employers are typically limited in what they can charge for their goods and services in the market place, necessitating changes in other compensation costs to accommodate the added cost of the employer payroll tax. The economics literature indicates that much of the cost of increased health care spending for employers historically has been passed-on to workers in the form of reduced wages over-time. ${ }^{22}$

In this analysis, we assume that the change in costs to employers are passed on to workers in the form of wage adjustments. Employers who see savings under the proposal are assumed to increase wages by the amount of their net savings, while employers who face increases in costs under the Act are assumed to pass-on these costs in the form of lower wages. It is likely that these wage changes would take the form of changes in wage growth over-time. For illustrative purposes, we assume that the full amount of these wage pass-through adjustments would occur in 2006 as the program is implemented.

We assume that the amounts passed on to workers would be equal to the amount of the change in employer costs, adjusted for any changes in employer payroll taxes resulting from the wage adjustment. For example, for workers in firms that see a net reduction in health spending, we assume the wage adjustment is equal to the amount of the savings less the amount of the employer payroll tax that would be paid by the employer on these increased wages, including the employer portion of the Social Security payroll tax and the employer payroll tax under the Act. This means that an average of about 85 percent of the change in employer costs is actually shifted to the worker, which is consistent with economic literature on the wage pass-through for health benefits. ${ }^{23}$

Using these assumptions, we estimate that the Act we have analyzed would result in a net reduction in wages for workers in California, including public and private employees, of about $\$ 2.2$ billion in 2006 under the Act. ${ }^{24}$ However, much of this wage reduction would be offset by changes in family income and Social Security taxes so that the after-tax wage reduction would be about $\$ 1.0$ billion. The size of the tax offset (i.e., about $\$ 1.2$ billion) reflects the fact that much of the wage reduction would be concentrated among higher income workers with comparatively high marginal tax rates, while workers facing wage reductions would tend to be lower-income workers with lower tax rates.

[^15]However, employers are assumed to retain savings for retirees. This is because retiree benefits are the fulfillment of prior obligations to prior employees which have no impact on current labor markets. We assume that savings for retirees are retained by the employer, which ultimately will affect income for investors. Thus, savings in retiree health benefits for employers would probably accrue to the employer and investors over the long-term. As shown above, savings to private employers with retiree benefits would be about $\$ 2.8$ billion. This can be thought of as the net savings to private employers after accounting for wage effects. These savings would be concentrated among large firms and in the manufacturing, transportation and services industries (Figure 13).

Figure 13
Private Employers Would Retain all of Their savings in Retiree Health Benefits Costs: 2006
(in millions)

Firm Size



## Total Retiree Savings \$2,799 Million

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## F. Impact on Family Health Spending

Family health spending includes out-of-pocket payments for premiums and direct payments to providers for health services. Family health spending would be reduced under the Act that we analyzed due to the elimination of premiums and cost-sharing for nearly all health services. These savings to families would be largely offset by increased tax payments to fund the program. Also, wage and salary incomes would also change as employers adjust wages to reflect changes in employer health spending under the Act. Overall, we estimate that Californians would see net savings averaging about $\$ 340$ per family. These changes would vary across families by income, age and other demographic characteristics.

## 1. Aggregate Changes in Health Spending for Families

We estimate that families in California will spend about $\$ 42.8$ billion on health insurance coverage and health services under current law in 2006 (Figure 14). ${ }^{25}$ This includes about $\$ 21.1$ billion in family insurance premium payments and about $\$ 21.7$ billion in direct payments for health services. We estimate that average family spending for premiums and services will be about $\$ 2,788$ per family in 2006.

Figure 14
Changes in Family Health Spending in California Under the The Act in 2006
(in millions)

|  | Family Health Spending Under Current Law | Family Health Spending The Act | Change in Family Spending The Act |
| :---: | :---: | :---: | :---: |
| Health Insurance Premiums | \$21,107 |  | $(\$ 21,107)$ |
| Employee Premium Contributions | \$15,443 | -- | $(\$ 15,443)$ |
| Non-Group Insurance | \$5,664 | -- | $(\$ 5,664)$ |
| Family Out-of-pocket Spending (Copayments, Uncovered Services, etc.) | \$21,714 | $(\$ 3,589)$ | $(\$ 18,125)$ |
| Primary and Acute Care Benefits | \$17,923 | (\$495) | $(\$ 17,428)$ |
| Long-Term Care | \$3,791 | $(\$ 3,094)$ | (\$697) |
| Reduction in After-Tax Wages (Shown as an Increase in Family Spending for Health) ${ }^{\text {a/ }}$ | -- | \$966 | \$966 |
| Taxes to Fund Program ${ }^{\text {b/ }}$ |  | \$33,310 | \$33,310 |
| Worker Payroll Tax (3.78 percent) ${ }^{\text {c/ }}$ | -- | \$28,540 | \$28,540 |
| Unearned Income Tax ( 3.5 percent) | -- | \$3,458 | \$3,458 |
| Tax on Income Over \$200,000 (1.0 percent) | -- | \$1,312 | \$1,312 |
| Total Family Health Spending | \$42,821 | \$37,865 | (\$4,956) |

a/ The net reduction in after-tax wage income resulting from the program is counted here as an increase in the cost of health care to families. Includes changes in wages, payroll taxes and income taxes. Includes wage effects for both public and private employers.
b/ The payroll taxes and the tax on unearned income have a taxable income floor of $\$ 7,000$ and a taxable income ceiling of $\$ 200,000$.
c/ Includes the portion of the tax on self-employed people that would have been the worker tax payment if they had been an employee (i.e., 3.78 percent). The part of the tax that would have been paid by the employer (i.e., 8.17 percent) is counted as an employer cost in our analysis of the impact on private employers discussed above.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Family premium payments include worker contributions for employer-sponsored health insurance ( $\$ 15.4$ billion) and premiums for individually purchased non-group health insurance (\$5.7 billion), including supplemental coverage for Medicare enrollees. Out-of-pocket payments for health services include direct payments to providers for services including co-payments,
${ }^{25}$ Includes out-of-pocket payments for the non-institutionalized population.
services not covered by insurance and care purchased by the uninsured. Of the $\$ 21.7$ billion in family out-of-pocket payments to health care providers, about $\$ 17.9$ billion will be for primary and acute care services and about $\$ 3.8$ billion will be for long-term care services such as nursing home and home health care.

Family spending for health insurance premiums and out-of-pocket payments for health services would be nearly eliminated under the Act for nearly all health services. Family premium savings would be about $\$ 21.1$ billion in 2006. Out-of-pocket payments for health services also would decline by about $\$ 18.2$ billion because the Act would require virtually no co-payments. Family spending on premiums and health services would remain only for services that are not covered by the program, which includes primarily nursing home care. Families would continue to spend about $\$ 3.0$ billion out-of-pocket for long-term care services under the Act in 2006.

These savings to families would be largely offset by new tax payments under the program of about $\$ 33.3$ billion. This includes the worker share of the payroll tax ( 3.78 percent), the tax on unearned income ( 3.5 percent) and the surcharge on incomes over $\$ 200,000$ (one percent). The payroll taxes and the tax on unearned income have a taxable income floor of $\$ 7,000$ and a taxable income ceiling of $\$ 200,000$.

As discussed above, we assume that employers will adjust wages to reflect changes in employer spending on health care under the Act. Employers who now offer coverage would typically see savings under the Act resulting in increased wages for most of the employees in these firms. However, the payroll tax would increase employer costs in firms that do not now offer insurance, resulting in reduced wages for these employees. Overall, we estimate a net reduction in average after-tax wages and salaries of about $\$ 966$ million. ${ }^{26}$ In this analysis, we treat this after-tax reduction in wages as an increase in what California families spend on health care.

After accounting for new tax payments and wage adjustments, families in California would see savings in what they spend for health care of about $\$ 5.0$ billion under the Act in 2006.

## 2. Health Spending Impacts by Demographic Group

Californians will pay an average of about $\$ 2,788$ per family in insurance premiums and direct payments to providers for health services under current law in 2006 (Figure 15). Family payments for health insurance premiums ( $\$ 1,558$ per family) include worker contributions for ESI and premiums for individually purchased non-group coverage. Out-of-pocket payments to providers for health services $(\$ 1,229)$ per family include deductibles and co-payments for health services under health plans, payments to providers for non-covered services and payments for health services by uninsured people.

[^16]Figure 15
Change in Average Family Health Spending in California Under the Act in $2006{ }^{a /}$

|  | Average Spending Per Family Under Current Law in 2006 | Average Spending per Family Under the Act in 2006 | Change in Spending Under the Act in 2006 |
| :---: | :---: | :---: | :---: |
| Marital Status of Family Head |  |  |  |
| Married | \$3,895 | \$3,115 | (\$465) |
| Single | \$1,766 | \$1,391 | (\$224) |
| Male | \$1,182 | \$2,178 | \$1,169 |
| Female | \$2,039 | \$1,023 | (\$875) |
| Age of Family Head |  |  |  |
| Under Age 25 | \$985 | \$702 | (\$283) |
| Age $25-34$ | \$1,963 | \$1,702 | (\$261) |
| Age 35-44 | \$2,743 | \$2,938 | \$195 |
| Age 45 - 54 | \$3,555 | \$3,561 | \$6 |
| Age 55-64 | \$3,624 | \$2,709 | (\$915) |
| Age 65 and older | \$3,150 | \$1,875 | $(\$ 1,275)$ |
| Families Distributed by the Amount They Would Have Paid Out-of-Pocket for Health Services in 2006 Under Current Law |  |  |  |
| Less than \$500 | \$309 | \$1,492 | \$1,183 |
| \$500-\$999 | \$1,626 | \$2,678 | \$1,052 |
| \$1,000-\$2,499 | \$3,485 | \$2,763 | (\$722) |
| \$2,500-\$4,999 | \$6,685 | \$3,342 | $(\$ 3,343)$ |
| \$5,000 - or more | \$13,863 | \$4,413 | $(\$ 9,450)$ |
| Current Insured Status |  |  |  |
| Currently Uninsured ${ }^{\text {b/ }}$ | \$926 | \$2,970 | \$2,044 |
| Currently Insured | \$2,940 | \$2,405 | (\$535) |
| All Families |  |  |  |
| Total Families | \$2,788 | \$2,448 | (\$340) |

a/ Includes changes in premiums, out-of-pocket expenses, taxes to replace premium payments under the program and after-tax wage effects. Excludes the institutionalized.
b/ Includes families where all family members are uninsured all year.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
We estimate that average family out-of-pocket spending for health care would decline to about $\$ 2,448$ per family under the Act in 2006. This is an average savings of about $\$ 340$ per family. This reflects the elimination of most out-of-pocket spending for health services and premiums, changes in after-tax wages and new family tax payments to replace premiums paid under the current system.

Figure 16 graphs the changes in spending per family by age of family head. Savings under the plan would tend to be greatest for older people. For example, families headed by an individual age 65 or older would save about $\$ 1,275$ per family. Average health spending would also decrease for people age 55 to 64 by an average of $\$ 915$. Families headed by people under the age of 35 would also see savings ranging between $\$ 260$ and $\$ 285$ per family. However, on average, there would be a small increase in health spending for families headed by someone age 35 to 54 , reflecting the fact that these include workers are in their prime earnings years and would be more greatly effected by the payroll tax. There would be little net change in average family spending for people in families headed by someone age 45 to 55 .

Figure 16
Change in Average Family Health Spending by Age of Family Head Under the Act in 2006


## Age of Family Head

a/ Changes in spending are the difference between health insurance premiums and out-of-pocket payments to providers under current law in 2006 and what family spending would be under the Act in that year. Family spending under the Act includes family tax payments to replace premiums, the net after-tax change in wages and any remaining premium and out-of-pocket spending for services not covered by the Act.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Our savings estimate for people age 65 or older $(\$ 1,275)$ is higher than for other age groups because the aged use more health services than the general population. The Act would cover much of the care not now covered by the Medicare program, including co-payments and most home health services. This nearly eliminates out-of-pocket payments for health services by consumers and eliminates the need for Medicare recipients to purchase supplemental coverage (some times called "Medi-gap") to cover uncovered services. Out-of-pocket spending would continue for nursing home services not covered by the Act.

However, because most of the elderly do not work, they would not be subject to payroll taxes and wage effects, and would pay only the 3.5 percent tax on taxable pensions and other nonearnings income (the tax is on the amount of non-earnings income between $\$ 7,000$ and $\$ 200,000)$, and the one percent surcharge on incomes over $\$ 200,000$.

Younger individuals would tend to save less because they typically use significantly less health care and would typically be subject to the payroll tax created under the program. The working age population is also subject to any wage effects resulting from the employer share of the payroll tax.

## 4. Changes in Family Health Spending by Income Level

As discussed above, Californians would save an average of about $\$ 340$ in health spending per family. This is composed of an average reduction in out-of-pocket spending for health services of about $\$ 1,195$, and a reduction in family out-of-pocket premium payments of about $\$ 1,434$ (Figure 17). These savings would be largely offset by an increase in family tax payments of $\$ 2,251$ to replace the health insurance premiums that are eliminated under the Act. There also would be an average after-tax wage reduction of about $\$ 39$ per family due to employer wage adjustments resulting from the program.

Figure 17

## Change in Average Family Health Spending Under the Act by Type of Health Spending in 2006


a/ Includes family premium payments and out-of-pocket spending for health services.
b/ Increases in wages resulting from the Act are counted as reductions in family health spending while decreases in wages due to the Act are treated as increases in family health spending. For example, the
average net change in family health spending for people with under \$10,000 income (i.e., savings of \$608) is computed as: $-\$ 124-\$ 334+\$ 5-\$ 155=\$-608$ (i.e., the $\$ 155$ increase in after-tax wages is counted as a reduction in family health spending).
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
In general, the Act that we analyzed would tend to reduce health care costs for lower- and middle-income families, while increasing health related costs for people in higher income groups. Savings would average between $\$ 600$ and $\$ 3,000$ per family for those with family incomes below $\$ 150,000$. However, health spending would increase by about $\$ 3,973$ per family for families with incomes of $\$ 150,000$ to $\$ 199,999$ (Figure 18). The average increase in spending per family would be $\$ 7,040$ in the $\$ 200,000$ to $\$ 249,999$ income group and $\$ 11,016$ for families with incomes of $\$ 250,000$ or more. This reflects the fact that the program would shift the state from a premium-financed system to a tax-financed system where total family health spending generally would be in proportion to family income.

Figure 18
Change in Health Spending Per Family by Income Group Under the Act in $2006{ }^{\text {a/ }}$

a/ Changes in spending are the difference between health insurance premiums and out-of-pocket payments to providers under current law in 2006 and what family spending would be under the Act in that year. Family spending under the Act includes family tax payments to replace premiums, the net after-tax change in wages and any remaining premium and out-of-pocket spending for services not covered by the Act.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## VI. ALTERNATIVE BENEFITS DESIGNS

The benefits that we assume would be covered under the Act include most health services without patient cost-sharing, although it does not expand coverage for nursing home care. In this section, we provide estimates of the cost of the program under alternative benefits designs and/or patient cost-sharing requirements. We also estimate the impact of expanding coverage for covering nursing home services under the program. Our estimates are provided in the following sections:

- Alternative benefits designs for acute care; and
- The impact of covering nursing home service.


## A. Alternative Benefits Design for Acute Care

The cost of the program is sensitive to benefits design. The program would not require copayments for services. However, the program does emphasize primary care by not covering physician specialist services provided without a referral from a primary care provider. ${ }^{27}$ As discussed above, we assume that this would increase the emphasis on primary care resulting in savings to the system (about 4.0 percent) for affected people.

Implementing this program without the referral requirement would lead to higher utilization and expenditures under the program. As discussed above, total program spending with the referral requirement would be $\$ 166.8$ billion, of which $\$ 72.1$ billion would be paid with the funding for current government health benefits programs, requiring the state to collect an additional $\$ 94.6$ billion in taxes to replace premiums under the current system (Figure 19). Without the referral requirement, total program spending would increase to $\$ 173.6$ billion, with the net new funding requirement increasing to $\$ 101.5$ billion (i.e., $\$ 173.6$ billion $-\$ 72.1$ billion).

Imposing a co-payment on all services would reduce program costs, both because the patient would pay a portion of the charge for each visit (i.e., $\$ 5.00$ per visit) and because cost-sharing typically reduces utilization. Implementing the program with a $\$ 100$ deductible per hospitalization and a $\$ 5.00$ co-payment requirement for all services together with the primary care model would reduce program costs to about $\$ 155.7$ billion, requiring $\$ 83.6$ billion in new revenues. Using these co-payment requirements without the primary care model increases program costs to $\$ 162.4$ billion with a net new revenue requirement of about $\$ 90.3$ billion.

[^17]Figure 19
The Impact of the Primary Care Model and Co-payments on Program Costs and Revenues under the Act in 2006
(in millions)

|  | Without Co-payments ${ }^{\text {a/ }}$ |  | With \$5.00 Co-payments ${ }^{\text {d/ }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | With Primary Care Referral Requirement ${ }^{b /}$ | Without Primary Care Referral Requirement | With Primary Care Referral Requirement | Without <br> Primary Care Referral Requirement ${ }^{c /}$ |
| Program Spending |  |  |  |  |
| Benefits |  |  |  |  |
| Acute Care | \$168,278 | \$175,093 | \$156,076 | \$162,754 |
| Long-term Care Services | \$7,380 | \$7,380 | \$7,380 | \$7,380 |
| Mentally III \& Developmentally Disabled | \$2,391 | \$2,391 | \$2,391 | \$2,391 |
| Bulk Purchasing Savings | $(\$ 5,204)$ | $(\$ 5,204)$ | $(\$ 5,114)^{\text {e/ }}$ | $(\$ 5,114)^{\text {e/ }}$ |
| Adjustments to Provider Payments |  |  |  |  |
| Cost Shift Adjustment | $(\$ 2,759)$ | $(\$ 2,759)$ | $(\$ 2,702)$ | $(\$ 2,702)$ |
| Provider Administration | $(\$ 10,174)$ | $(\$ 10,174)$ | $(\$ 9,564)$ | $(\$ 9,564)$ |
| Continued Medi-Cal | \$3,966 | \$3,966 | \$4,432 | \$4,432 |
| Program Administration | \$2,877 | \$2,934 | \$2,789 | \$2,844 |
| Total Spending | \$166,755 | \$173,627 | \$155,688 | \$162,421 |
| Financing |  |  |  |  |
| Current Program Funds | \$72,138 | \$72,138 | \$72,138 | \$72,138 |
| Net New-Revenue Requirement | \$94,617 | \$101,489 | \$83,550 | \$90,283 |

a/ There would be no co-payments for any of the acute care services under the Act plan that we analyzed. However, physician specialist services provided without referral from a primary care physician would not be covered.
b/ Based upon the Act described above in Section II. Patient visits for physician specialist services would not be covered unless referred by a primary care physician.
c/ Assumes higher utilization due to elimination of restrictions on access to specialist providers, resulting in higher benefits costs and higher administrative costs.
d/ There would be a $\$ 5.00$ co-pay for all services and for all drug prescriptions. There also would be a $\$ 100$ deductible for each inpatient hospital stay.
e/ Bulk purchasing savings decline with the co-payment because the co-pay reduces prescription drug utilization just as it reduces utilization of other health services.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## B. The Cost of Expanding Coverage of Nursing Home Services

The Act analyzed above would cover up to 100 days of care in skilled nursing facilities. However, it would not expand coverage of other nursing home care such as intermediate care facilities (ICFs) beyond those now covered under the current Medi-Cal program.

Figure 20 presents estimates of the cost of the Act if it were expanded to include expanded coverage for nursing home services. Total program costs would increase by about $\$ 3.8$ billion if we were to cover all nursing home services except room and board under the Act. The total net
new funding requirement for the program would increase from $\$ 94.6$ billion under the Act described above in Section II to about $\$ 98.4$ billion.

Figure 20
The Impact of Expanding Nursing Home Coverage Under the Act in 2006
(in millions)

|  | The Act Without Expanded Nursing Home Coverage ${ }^{\text {a/ }}$ | The Act With Expanded Nursing Home Coverage Except Room and Board ${ }^{\text {b/ }}$ | The Act With Expanded Coverage for Nursing Home Services including Room and Board |
| :---: | :---: | :---: | :---: |
| Program Spending |  |  |  |
| Benefits |  |  |  |
| Acute Care | \$168,278 | \$168,278 | \$168,278 |
| Long-term Care Services | \$7,380 | \$13,470 | \$16,566 |
| Mentally III \& Developmentally Disabled | \$2,391 | \$2,391 | \$2,391 |
| Bulk Purchasing Savings | $(\$ 5,204)$ | $(\$ 5,204)$ | $(\$ 5,204)$ |
| Adjustments to Provider |  |  |  |
| Payments |  |  |  |
| Cost Shift Adjustment | $(\$ 2,759)$ | $(\$ 2,759)$ | $(\$ 2,759)$ |
| Provider Administration | $(\$ 10,174)$ | $(\$ 10,174)$ | $(\$ 10,174)$ |
| Continued Medi-Cal | 3,966 | \$1,533 | \$304 |
| Program Administration | \$2,877 | \$2,987 | \$3,042 |
| Total Spending | \$166,755 | \$170,572 | \$172,444 |
| Financing |  |  |  |
| Current Program Funds | \$72,138 | \$72,138 | \$72,138 |
| Net New-Revenue |  |  |  |
| Requirement | \$94,617 | \$98,384 | \$100,306 |

a/ As described above in Section II, the Act is assumed to cover home health services but does not cover nursing home services.
$\mathrm{b} /$ Assumes that nursing home services other than room and board are covered.
c/ Includes coverage of nursing home services including room and board.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
If we expand the program to cover nursing home room and board as well, total spending under the Act would be $\$ 172.4$ billion in 2006. The total amount of new revenues required to fully fund the program would be about $\$ 100.3$ billion.

## VII. ALTERNATIVE FINANCING

During the course of this study, we estimated revenues under several alternative tax rates. These include tax rates for the payroll tax, the business income tax, the unearned income tax and the surcharge on incomes over $\$ 200,000$. We examined six revenue scenarios including:

## Scenario \# 1

| Payroll Tax: | 8 percent on employers |
| :--- | :--- |
|  | 4 percent on employees |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Business Tax: | 12 percent (self-employed etc.) |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Unearned Income: | 4 percent (Other investment income and taxable pensions) |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Surcharge on Income: | 1 percent of income above $\$ 200,000$ (all taxable income) |

## Scenario \#2

| Payroll Tax: | 8 percent on employers |
| :--- | :--- |
|  | 4 percent on employees |
|  | $\$ 7,000$ floor; $\$ 200,000$ ceiling |
| Business Tax: | 12 percent (self-employed etc.) |
|  | $\$ 7,000$ floor; $\$ 200,000$ ceiling |
| Unearned Income: | 4 percent (Other investment income and taxable pensions) |
|  | $\$ 7,000$ floor; $\$ 200,000$ ceiling |
| Surcharge on Income: | 1 percent of income above $\$ 200,000$ (all taxable income) |

## Scenario \#3

| Payroll Tax: | 7 percent on employers |
| :--- | :--- |
|  | 3 percent on employees |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Business Tax: | 10 percent (self-employed etc.) |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Unearned Income: | 3 percent (Other investment income and taxable pensions) |
|  | $\$ 5,000$ floor; $\$ 200,000$ ceiling |
| Surcharge on Income: | 1 percent of income above $\$ 200,000$ (all taxable income) |

## Scenario \#4

| Payroll Tax: | 7 percent on employers |
| :--- | :--- |
|  | 3 percent on employees |
|  | $\$ 7,000$ floor; $\$ 200,000$ ceiling |
| Business Tax: | 10 percent (self-employed etc.) |
|  | $\$ 7,000$ floor; $\$ 200,000$ ceiling |
| Unearned Income: | 3 percent (Other investment income and taxable pensions) |

\$7,000 floor; \$200,000 ceiling
Surcharge on Income:
1 percent of income above $\$ 200,000$ (all taxable income)

## Scenario \# 5

Same as scenario \#1 with floors computed as:
$\$ 7,000$ for incomes less than $\$ 25,000$;
$\$ 6,000$ for incomes between $\$ 25,000$ and $\$ 30,000$; and $\$ 5,000$ for incomes above $\$ 30,000$.

## Scenario \#6

Payroll Tax:

Business Tax: 11 percent (self-employed etc.)
7.5 percent on employers
3.5 percent on employees
\$7,000 floor; \$200,000 ceiling
\$7,000 floor; \$200,000 ceiling
Unearned Income: $\quad 3.5$ percent (Other investment income and taxable pensions) \$7,000 floor; \$200,000 ceiling
Surcharge on Income: 1 percent of income above \$200,000 (all taxable income)
Figure 21 presents estimates of revenues raised under each of these funding scenarios. The funding scenario selected for the program was as described in scenario \#6. However, because this scenario requires more revenues than would be raised under this tax rate scenario, the payroll tax and business tax rates are adjusted to raise the amount required to fund the program in 2006 ( $\$ 94.6$ billion). This adjustment is discussed above under funding assumptions.

Figure 21
Revenues Under Alternative Funding Scenarios for the California The Act in 2006 (in millions)

|  | Scenario <br>  <br>  <br>  | Scenario <br> $\boldsymbol{\# 2}$ | Scenario <br> $\boldsymbol{\# 3}$ | Scenario <br> $\boldsymbol{\# 4}$ | Scenario <br> $\boldsymbol{\# 5}$ | Scenario <br> $\boldsymbol{\# 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Employer Payroll Tax | $\$ 57,076$ | $\$ 54,544$ | $\$ 49,940$ | $\$ 47,725$ | $\$ 56,129$ | $\$ 51,133$ |
| Employee Payroll Tax | $\$ 28,534$ | $\$ 27,268$ | $\$ 21,398$ | $\$ 20,449$ | $\$ 28,061$ | $\$ 23,857$ |
| Business Income Tax | $\$ 8,579$ | $\$ 8,272$ | $\$ 7,148$ | $\$ 6,893$ | $\$ 8,485$ | $\$ 7,582$ |
| Unearned Income Tax | $\$ 4,177$ | $\$ 3,952$ | $\$ 3,132$ | $\$ 2,964$ | $\$ 4,098$ | $\$ 3,458$ |
| High Income Surcharge | $\$ 1,312$ | $\$ 1,312$ | $\$ 1,312$ | $\$ 1,312$ | $\$ 1,312$ | $\$ 1,312$ |
| Total | $\$ 99,678$ | $\$ 95,348$ | $\$ 82,930$ | $\$ 79,343$ | $\$ 98,085$ | $\$ 87,342$ |

Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).
Average payroll tax costs for employers are presented in Figure 22 for scenarios 1 through 4.

Figure 22-A
Employer Payroll Tax Payments Under Scenario \#1

|  | Insuring |  |  | Non-Insuring |  |  | All Firms |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker |
| Under 10 | 1,433 | \$6,608 | \$4,612 | 2,058 | \$5,478 | \$2,662 | 3,491 | \$12,087 | \$3,462 |
| 10-24 | 919 | \$3,892 | \$4,236 | 696 | \$1,789 | \$2,570 | 1,615 | \$5,681 | \$3,518 |
| 25-99 | 1,750 | \$6,633 | \$3,791 | 471 | \$779 | \$1,655 | 2,221 | \$7,413 | \$3,338 |
| 100-499 | 1,590 | \$6,639 | \$4,176 | 325 | \$596 | \$1,835 | 1,915 | \$7,236 | \$3,779 |
| 500-999 | 613 | \$3,129 | \$5,106 | 108 | \$133 | \$1,240 | 721 | \$3,263 | \$4,527 |
| 1000-4999 | 973 | \$3,972 | \$4,083 | 444 | \$1,074 | \$2,421 | 1,417 | \$5,047 | \$3,562 |
| 5000+ | 2,955 | \$11,600 | \$3,926 | - | \$0 | n/a | 2,955 | \$11,600 | n/a |
| Federal | 475 | \$2,336 | \$4,920 | - | \$0 | n/a | 475 | \$2,336 | n/a |
| State \& Local | 2,113 | \$8,127 | \$3,846 | - | \$0 | n/a | 2,113 | \$8,127 | n/a |
| Total | 12,821 | \$52,942 | \$4,129 | 4,102 | \$9,852 | \$2,402 | 16,923 | \$62,794 | \$3,711 |

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Figure 22-B

## Employer Payroll Tax Payments Under Scenario \#2

|  | Insuring |  |  | Non-Insuring |  |  | All Firms |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker |
| Under 10 | 1,433 | \$6,372 | \$4,447 | 2,058 | \$5,155 | \$2,505 | 3,491 | \$11,528 | \$3,302 |
| 10-24 | 919 | \$3,741 | \$4,072 | 696 | \$1,678 | \$2,412 | 1,615 | \$5,420 | \$3,356 |
| 25-99 | 1,750 | \$6,341 | \$3,624 | 471 | \$702 | \$1,491 | 2,221 | \$7,044 | \$3,172 |
| 100-499 | 1,590 | \$6,382 | \$4,014 | 325 | \$542 | \$1,671 | 1,915 | \$6,925 | \$3,616 |
| 500-999 | 613 | \$3,029 | \$4,942 | 108 | \$119 | \$1,108 | 721 | \$3,149 | \$4,368 |
| 1000-4999 | 973 | \$3,814 | \$3,920 | 444 | \$1,004 | \$2,263 | 1,417 | \$4,818 | \$3,401 |
| 5000+ | 2,955 | \$11,118 | \$3,763 | - | \$0 | n/a | 2,955 | \$11,118 | n/a |
| Federal | 475 | \$2,260 | \$4,759 | - | \$0 | n/a | 475 | \$2,260 | n/a |
| State \& Local | 2,113 | \$7,793 | \$3,688 | - | \$0 | n/a | 2,113 | \$7,793 | n/a |
| Total | 12,821 | \$50,855 | \$3,967 | 4,102 | \$9,203 | \$2,244 | 16,923 | \$60,058 | \$3,549 |

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Figure 22-C
Employer Payroll Tax Payments Under Scenario \#3

|  | Insuring |  |  | Non-Insuring |  |  | All Firms |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Workers (thousands) | $\begin{gathered} \hline \text { Employer } \\ \text { Tax } \\ \text { (millions) } \end{gathered}$ | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | $\begin{gathered} \hline \text { Employer } \\ \text { Tax } \\ \text { (millions) } \end{gathered}$ | Tax per Worker |
| Under 10 | 1,433 | \$5,782 | \$4,035 | 2,058 | \$4,793 | \$2,329 | 3,491 | \$10,576 | \$3,030 |
| 10-24 | 919 | \$3,405 | \$3,706 | 696 | \$1,565 | \$2,249 | 1,615 | \$4,971 | \$3,078 |
| 25-99 | 1,750 | \$5,804 | \$3,317 | 471 | \$682 | \$1,448 | 2,221 | \$6,486 | \$2,921 |
| 100-499 | 1,590 | \$5,809 | \$3,654 | 325 | \$521 | \$1,605 | 1,915 | \$6,331 | \$3,306 |
| 500-999 | 613 | \$2,738 | \$4,467 | 108 | \$117 | \$1,085 | 721 | \$2,855 | \$3,961 |
| 1000-4999 | 973 | \$3,475 | \$3,572 | 444 | \$940 | \$2,118 | 1,417 | \$4,416 | \$3,117 |
| 5000+ | 2,955 | \$10,150 | \$3,435 | - | \$0 | n/a | 2,955 | \$10,150 | n/a |
| Federal | 475 | \$2,044 | \$4,305 | - | \$0 | n/a | 475 | \$2,044 | n/a |
| State \& Local | 2,113 | \$7,111 | \$3,366 | - | \$0 | n/a | 2,113 | \$7,111 | n/a |
| Total | 12,821 | \$46,323 | \$3,613 | 4,102 | \$8,620 | \$2,102 | 16,923 | \$54,944 | \$3,247 |

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Figure 22-D
Employer Payroll Tax Payments Under Scenario \#4

|  | Insuring |  |  | Non-Insuring |  |  | All Firms |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker | Workers (thousands) | Employer Tax (millions) | Tax per Worker |
| Under 10 | 1,433 | \$5,575 | \$3,891 | 2,058 | \$4,511 | \$2,192 | 3,491 | \$10,086 | \$2,889 |
| 10-24 | 919 | \$3,274 | \$3,563 | 696 | \$1,468 | \$2,110 | 1,615 | \$4,742 | \$2,937 |
| 25-99 | 1,750 | \$5,548 | \$3,171 | 471 | \$614 | \$1,305 | 2,221 | \$6,163 | \$2,775 |
| 100-499 | 1,590 | \$5,584 | \$3,512 | 325 | \$475 | \$1,462 | 1,915 | \$6,059 | \$3,164 |
| 500-999 | 613 | \$2,650 | \$4,324 | 108 | \$104 | \$970 | 721 | \$2,755 | \$3,822 |
| 1000-4999 | 973 | \$3,337 | \$3,430 | 444 | \$879 | \$1,980 | 1,417 | \$4,216 | \$2,975 |
| 5000+ | 2,955 | \$9,728 | \$3,292 | - | \$0 | n/a | 2,955 | \$9,728 | n/a |
| Federal | 475 | \$1,978 | \$4,164 | - | \$0 | n/a | 475 | \$1,978 | n/a |
| State \& Local | 2,113 | \$6,819 | \$3,227 | - | \$0 | n/a | 2,113 | \$6,819 | n/a |
| Total | 12,821 | \$44,497 | \$3,471 | 4,102 | \$8,053 | \$1,963 | 16,923 | \$52,550 | \$3,105 |

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

## VIII. HEALTH SPENDING IN FUTURE YEARS

The Act would have a long-term impact on health spending growth in California in future years. The Office of the Actuary of the Center for Medicare and Medicaid (CMS) Services projects that health spending will grow at an average rate of about 7.2 percent per year in 2007 through 2012. However, as described above, the Act that we analyzed, would include a legislative mandate for the state to limit the rate of growth in spending under the Act so that it does not exceed the longterm rate of growth in state gross domestic product (GDP); which is projected to be about 5.14 percent per year over the next decade. Under these assumptions, the savings from the Act would increase each year as the rate of growth in spending is slowed to the allowable level.

In this analysis, we estimated the impact of the program on total state-wide health spending. We estimate that state-wide health spending will be lower than under current law. Statewide spending includes both spending for services covered under the Act and spending for health services not covered under the Act such as some nursing home care.

Using the CMS projections, we estimate that total statewide health spending under current law would increase from $\$ 184.2$ billion in 2006 to about $\$ 345.6$ billion by 2015 (Figure 23). As discussed above, the Act would actually reduce statewide health spending in 2006 from $\$ 184.2$ billion under current law to about $\$ 176.2$ billion (of which $\$ 166.8$ billion is covered under the Act and $\$ 9.4$ billion is for services not covered by the Act).

However, the Act that we examined includes a legislated mandate to slow the rate of growth in health spending to the rate of growth in GDP. Under this provision, health spending in California would increase to about $\$ 276.7$ billion in 2015, which is about $\$ 68.9$ billion less than it is projected to be in that year under current law (i.e., $\$ 345.6$ billion). This is a savings of about 20 percent in 2015. Total savings over the 2006 through 2015 period would be $\$ 343.6$ billion.

Figure 23
Projected Growth in Health Spending for California Under Current Trends and Under The Act: 2006-2015

> (in billions)
$\longrightarrow$ Current Trends - - The Act


Source: Lewin Group estimates.
Figure 24 presents estimates of spending and revenues under the Act for 2006 through 2015. As discussed above, the rate of growth in spending under the program would be capped not to exceed the rate of growth in state GDP. Under this constraint, we estimate that total program spending would increase from $\$ 166.8$ billion in 2006 to $\$ 261.8$ billion in 2015 . This would be funded with funding for discontinued public programs and new taxes created to replace premium payments under the current system.

Figure 24

## Expenditures Under the Act by Source of Revenue: 2006-2015 (in billions) ${ }^{\text {a/ }}$

|  |  | Source of Funds |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Program Spending | Medicare ${ }^{\text {b/ }}$ | Federal Medicaid ${ }^{\text {b/ }}$ | Other Federal ${ }^{\text {b/ }}$ | State Medicaid ${ }^{\text {cl }}$ | Other State ${ }^{\text {c }}$ | New Taxes |
| 2006 | \$166.8 | \$36.7 | \$15.1 | \$1.7 | \$12.8 | \$5.9 | \$94.6 |
| 2007 | \$175.4 | \$39.2 | \$16.4 | \$1.8 | \$13.4 | \$6.1 | \$98.5 |
| 2008 | \$184.3 | \$42.0 | \$17.9 | \$1.9 | \$14.1 | \$6.3 | \$102.1 |
| 2009 | \$193.8 | \$44.9 | \$19.4 | \$2.0 | \$14.9 | \$6.4 | \$106.2 |
| 2010 | \$203.8 | \$48.1 | \$21.1 | \$2.2 | \$15.6 | \$6.6 | \$110.2 |
| 2011 | \$214.3 | \$51.5 | \$23.0 | \$2.3 | \$16.4 | \$6.8 | \$114.3 |
| 2012 | \$225.3 | \$55.1 | \$25.0 | \$2.4 | \$17.3 | \$7.0 | \$118.5 |
| 2013 | \$236.9 | \$59.0 | \$27.2 | \$2.6 | \$18.1 | \$7.5 | \$122.5 |
| 2014 | \$249.0 | \$63.1 | \$29.6 | \$2.8 | \$19.1 | \$7.7 | \$126.7 |
| 2015 | \$261.8 | \$67.5 | \$32.2 | \$2.9 | \$20.1 | \$7.9 | \$131.2 |

a/ Assumes that health spending is constrained to grow at the rate of growth in State GDP.
b/ Assumes that federal health spending benefits for Californians would be transferred to the Act.
c/ Assumes that current state and local government spending would be indexed to GDP growth after 2006 with funds transferred to the program.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Federal contributions to the Act would be based upon the amount of federal funds that would have been used to fund health benefits for Californians under current programs. Thus, the federal contribution is indexed to the rate of growth in federal spending under these programs, which is greater than the rate of growth in the GDP used to cap spending growth under the Act. However, from the federal government's perspective, agreeing to transfer these funds to the program would be budget neutral.

However, state and local government contributions for the program are based upon the amount they would have paid for health benefits under current law in 2006, indexed to the rate of growth in the state GDP (i.e., about 5.14 percent per year). This differs from the federal contribution amount which is indexed to what health spending growth would have been in the absence of the program (assumed to be 7.2 percent per year after 2006).

Consequently, state and local government contributions to the Act in future years would be less than what would have been spent by state and local governments for health in those years, resulting in savings to these governments. In addition, state and local governments would save about $\$ 1.0$ billion on health benefits for government workers in 2006 (see Figure 7 above). Total savings to state and local governments would increase from about $\$ 900$ million in 2006 to about $\$ 8.8$ billion in 2015 (Figure 25). Total savings to state and local governments over the ten year period between 2006 and 2015 would be about $\$ 43.8$ billion.

Figure 25
Impact of The Act on State and Local Government Health Spending: 2006-2015 ${ }^{\text {a/ }}$ (in billions)

|  | Current <br> Spending <br>  | Net Transfer <br> to Program | Net <br> Savings |
| :--- | ---: | ---: | ---: |
| $\mathbf{2 0 0 6}$ | $\$ 18.7$ | $\$ 17.7$ | $(\$ 0.9)$ |
| 2007 | $\$ 20.0$ | $\$ 18.4$ | $(\$ 1.6)$ |
| 2008 | $\$ 21.4$ | $\$ 19.2$ | $(\$ 2.2)$ |
| 2009 | $\$ 22.9$ | $\$ 20.1$ | $(\$ 2.8)$ |
| 2010 | $\$ 24.5$ | $\$ 20.9$ | $(\$ 3.6)$ |
| 2011 | $\$ 26.3$ | $\$ 21.8$ | $(\$ 4.5)$ |
| 2012 | $\$ 28.2$ | $\$ 22.9$ | $(\$ 5.3)$ |
| 2013 | $\$ 30.5$ | $\$ 24.1$ | $(\$ 6.4)$ |
| 2014 | $\$ 32.8$ | $\$ 25.2$ | $(\$ 7.6)$ |
| 2015 | $\$ 35.2$ | $\$ 26.4$ | $(\$ 8.8)$ |

a/ Assumes that the amount the State is required to contribute to the Act is based upon State spending for Medicaid and other health benefits programs in 2006 indexed by long-term GDP growth. Reflects savings in state and local worker health benefits costs.
b/ Estimated based on projected trends in spending under Medicaid and other programs.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
An important feature of the Act is that the tax rates required to fund the program would be relatively stable over time. Under the current system, health spending is growing substantially faster than personal income, one measure of which is state GDP growth. If costs under the Act are permitted to grow at the current rate of growth in health spending, the tax rates required to fund
the program would need to be increased every year to accommodate the fact that spending is growing faster than the income base. However, by slowing the rate of growth in spending to the GDP growth rate, costs would grow at roughly the same rate as income, which would mean little change in the tax rates required to fully fund the program in future years.

## IX. Caveats

A program such as that proposed in the Act, has never been attempted on a broad scale in the United States. Consequently there are few data on the likely outcomes of such a program that can be used to estimate its impacts. In particular, the dramatic restructuring of the health care financing system in California could substantially alter consumer, employer and provider incentives, which could either increase or decrease cost pressures under the program.

The analysis presented here implicitly assumes that federal laws would be changed to transfer funding for Medicare, Medicaid and TRICARE/military care to the Act. This accounts for about $\$ 54.9$ billion of the funds needed to implement the program. However, if necessary, the Act could be designed to work with the existing Medicare program through coordination of benefits. Under this model, the third party administrator (TPA) for Medicare beneficiaries in California would process all claims for Medicare beneficiaries. The TPA would collect the reimbursement amount provided by Medicare for each covered service and then pay the amount not covered by Medicare through the Act. This coordination of benefits is already done with Medicare supplemental policies under current law.

However, failure to obtain a waiver to channel Medicaid funds through the program would present greater problems because California would still need to maintain a process for determining who meets the income eligibility requirements under the Medi-Cal and Healthy Families programs.

There are also issues in collecting employer payroll tax payments for California residents employed outside the state. The state cannot impose a tax on out-of-state employers. This would make it difficult to collect these revenues for California residents who live near state boundaries and work across state lines. However, in many instances, insuring employers outside of the state may find it advantageous to pay the payroll tax for California residents in lieu of providing them with their health benefits, particularly if cost containment is effective. Further study is needed to determine the extent of this problem and devise ways of addressing it.

Although the analyses in this paper are based upon the best data and research we know of, our estimates should be considered illustrative of potential impacts rather than point estimates of actual outcomes. Our estimates are based on projections of the rate of growth in health spending which are themselves especially sensitive to a number of factors including general economic growth and underlying health care cost trends. Moreover, our analysis assumes that the global budgets under the program would be effective in controlling health care cost growth in California, even though such a large scale global budgeting program is untested in the United States. Consequently, policy makers should recognize that any major health initiative is likely to require continued refinements in program design and financing over time.

Our analysis also does not consider the impact of the program on the quality of care. Expanding access to care should improve health status for those who are now uninsured or underinsured. Also focusing more of our limited health dollars on health services while spending less on administration could also elevate health status. However, it is difficult to predict the impact that spending controls would have on the diffusion of new technology in the system, and whether this would have an impact on health status or the quality of care.

Finally, as discussed above, the analyses presented here are based upon SB 921 as introduced in February 2003, with clarifications provided by the bill author's staff through April 30, 2004. This analysis does not reflect any changes that may have been made to SB 921 since that time. Changes to the bill could substantially change some or all of the estimates presented.

## APPENDIX A <br> THE IMPACT OF THE ACT ON HEALTH CARE ADMINISTRATIVE COSTS IN CALIFORNIA

In this analysis, we estimated the impact of covering all residents of California under a single insurance program as specified in Section II above. This program would substantially reduce the amount of resources required to administer the health care system due to the standardization of coverage and provider payment methods throughout the state. Physicians and hospitals would also devote less time and resources to obtain reimbursement for services provided.

In this section, we explain how we estimated insurer and provider administrative cost savings the under the Act in California. Our analysis is presented in the following sections:

- Administrative Spending in California;
- Insurer administrative expenses;
- Physician administrative costs; and
- Hospital administrative expenses.


## A. Administrative Spending in California

As discussed in Appendix B, we estimate that total health spending in California will be about $\$ 184.2$ billion in 2006 (excludes public health, research and construction). Of this, we estimate that about $\$ 52.4$ billion ( 28.5 percent) will be attributed to administration (Figure A-1). Administration includes the cost of administering health insurance. It also includes the costs incurred by hospitals and physicians for administration. These include the cost of administering payroll, quality control programs, claims submission, adjudication of claims and selective contracting negotiations with insurers.

The cost of administering insurance includes the cost of private insurer administration and administration of public programs. As discussed in Appendix B, we estimate that total insurer administrative costs in California will be about $\$ 14.0$ billion in 2006 . Of the $\$ 184.2$ billion in health spending projected for 2006, about $\$ 52.0$ billion ( 28.0 percent) will be for hospital care. Based upon a review of hospital expense data for California and studies of hospital administrative costs, we estimate that hospital administrative costs are equal to about $\$ 16.4$ billion ( 31.5 percent) of hospital net patient revenues. ${ }^{28}$

[^18]Figure A-1


Estimated Health Care Administrative Expenditures in the California Health Care System Under Current Law in 2006 (in millions)

|  | Costs for all <br> California Residents <br> al |
| :--- | ---: |
| Insurer Administration ${ }^{\text {bl }}$ | $\$ 14,021$ |
| Hospital Net-Patient Revenues | $\$ 51,966$ |
| Hospital Patient Care | $\$ 34,973$ |
| Hospital Administration $^{\text {d }}$ | $\$ 16,380$ |
| Physician Patient Revenues $^{\text {d }}$ | $\$ 60,327$ |
| Physician Patient Care $^{\text {Physician Administration }}$ el | $\$ 38,284$ |
| Total Administration | $\$ 22,038$ |

a/ Includes all California residents.
b/ Total Insurer Administration estimated in Appendix B.
c/ Based upon data for California Hospitals and studies of hospital spending for patient care and administration showing that hospital administrative costs (including hospital margin) are equal to about 32.7 percent of hospital net-patient revenues.
d/ Appendix B.
e/ Estimate based upon data showing that administrative costs for physicians are equal to about 36.5 percent of physician patient revenues.

Source: Lewin Group Estimates.
We estimate that physician revenues for patient care (excludes teaching and research revenues) in California will be about $\$ 60.3$ billion in 2006. Based upon administrative data obtained from the Medical Group Management Association (MGMA), we estimate that physician administrative costs will be about $\$ 22.0$ billion in 2006 (about 36.5 percent of patient revenues). Total health care administrative costs for insurers and providers in California will be about $\$ 53.0$ billion in 2006.

## B. Insurer Administrative Expenses

For purposes of this analysis, insurer administrative costs are defined to be the difference between insurer revenues and benefit payments. Total insurer administrative costs are comprised of two major components: administrative expenses of government-financed health programs, and the net cost of private health insurance (including administrative fees for private self-insured plans). ${ }^{29}$ Government programs and private insurers incur administrative costs from several activities including determining eligibility, processing claims, research, pre-service authorization and post-service utilization review such as reviewing claims for accuracy.
Administrative overhead for private insurers also entails marketing costs, profit, taxes, and the accumulation of reserves less interest earned on reserve balances. As discussed in Appendix B,

[^19]we estimate that total insurer and program administrative costs in California will be about $\$ 15.4$ billion for 2006.

## 1. Medicare as an Administrative Model

Adopting a single source of insurance would reduce insurer administrative costs by streamlining claims processing, standardizing coverage rules and eliminating costs associated with marketing and changes in sources of coverage. In this section, we estimate the changes in insurer administrative costs resulting from the Act.

We estimated administrative costs under the Act by extrapolating from administrative costs for the Medicare program. The Medicare experience was selected as the basis for our analysis because it is effectively a the Act for aged and disabled people which reflects the unique costs of health benefits administration in the US. The Medicare program is largely administered through contracts with private claims processing and utilization review firms so that overhead costs are reflected in the Medicare contract amounts. Also, the Medicare agency administration data (i.e., HCFA Medicare operations) include a fair market valuation of wages, fringe benefits, rent and other facilities and materials costs.

Annual administrative costs under the Medicare program will be about $\$ 115.44$ per person in 2003 (Figure A-2). About 56 percent of this cost is attributed to claims processing and about 25 percent is attributed to utilization review (peer-review, etc.). ${ }^{30}$ The remainder is attributed to agency administration and research.

## 2. Program Administration for Medicare Population

We estimate that under the Act, per-capita administrative costs for people now on Medicare would drop to about $\$ 109.58$. This estimate reflects the elimination of claims processing for hospital utilization offset by an increase in claims for physician services resulting from expanded coverage under the Act. This estimate was derived as follows:

- The Act eliminates claims filing for hospital care. We assumed that claims processing costs would be reduced by 20 percent based upon analysis of National Health Interview Survey data indicating that 20 percent of health care contacts (i.e., hospitals stays, physician visits) are for either inpatient or outpatient hospital care.
- We assumed a reduction in agency administrative costs due to the elimination of agency functions related to hospital claims filing. Agency administrative costs were assumed to decline in proportion to the change in claims processing costs.
- We assume that the reduction in claims filing costs would be offset by an increase in claims filing for physician services due to the elimination of patient cost-sharing. We estimate that physician claims would increase by about 18 percent due to the elimination of patient costsharing.

[^20]Figure A-2

## Derivation of Insurer Costs Per Enrollee

 Under the Act in 2006 al|  | Medicare <br> Costs Per <br> Enrollee | Elimination <br> of Hospital <br> Claims | Increased <br> Utilization | Costs for <br> California <br> Medicare <br> Enrolles The <br> Act | Costs for <br> Non-Medicare <br> Enrollees The <br> Act $\mathbf{f} /$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Administrative Costs in 2003 |  |  |  |  |  |  |

a/ Insurer administrative costs under the Act were extrapolated from administrative costs for current the Medicare program. Projected administrative costs for the Medicare program were obtained from CMS.
b/ We reduce Medicare claims processing costs in proportion to the number of claims Medicare receives for hospital care ( 20 percent). Hospital budgeting would eliminate hospital claims submission. We also assume that claims processing costs increase in proportion to the increase in physicians utilization (18 percent) expected under a program of comprehensive free care (see: "Key Assumptions" section of report).
c/ We assumed that utilization review costs under the Act would closely resemble Medicare's costs. d/ We assume that funding for research and demonstrations will exist under the Act in proportion to such costs under Medicare.
e/ Agency administrative costs are assumed to be reduced in proportion to the reduction in other administrative functions under the Act.
$\mathrm{f} / \mathrm{We}$ assume that administrative costs per enrollee will be 40 percent lower than among aged and disabled people due to the lower levels of utilization among the non-Medicare population. This adjustment was based upon differences in the number of covered claims for Medicare and non-Medicare enrollees estimated using the National Health Interview Survey Data.
g/ Assumes administrative cost growth at 3.0 percent per year between 2003 and 2006.
h/ Bureau of the Census Population Estimates.
Source: Lewin Group estimates.

- As under Medicare, the Act includes a utilization review (UR) program. We assume no change in per-capita UR costs under the Act. We also assume no change in per-capita research and demonstration costs.


## 3. Administration for Non-Medicare Population

The Medicare data overstate the likely cost of administering insurance for the non-Medicare population. This is because the level of health services utilization is typically lower for the general population than it is for aged and disabled people now covered under Medicare. The National Health Interview Survey (NHIS) data indicates that physicians utilization for nonaged people is about 40 percent lower than among people age 65 or older. Based upon these
data, we assumed that insurer administrative costs for the non-Medicare population would be about 40 percent lower than for Medicare recipients. This results in an estimated per-capita administrative cost for the non-Medicare population of about $\$ 65.42$ per person due to lower levels of provider utilization (i.e., claims filing) among this population.

## 4. Total Insurer Administrative Costs Under the Act

To estimate administrative costs in 2006 we updated the estimates presented in Figure A-2 for 2003 to reflect wage growth between 2003 and 2006. This results in estimated per-person administrative costs in 2006 of $\$ 123.28$ for the Medicare population and $\$ 73.59$ for the nonMedicare population. Total administrative costs for the Act in California would be $\$ 2.9$ billion in 2006 (Figure A-3).

Figure A-3
Insurer and Program Administrative Costs in California Under Current Law and the Act in 2006 (in millions) a/

|  | Current Policy | Costs Under The Act ${ }^{a l}$ |
| :---: | :---: | :---: |
| Employer-Sponsored Insurance | \$8,166 | \$84 |
| Individual Coverage | \$1,304 | \$1 |
| Medicare | \$1,033 | \$0 |
| TRICARE/Military | \$22 | \$0 |
| Medi-Cal/Healthy Families | \$2,137 | \$304 ${ }^{\text {b/ }}$ |
| Workers Compensation (health benefit) ${ }^{\text {c/ }}$ | \$1,069 | \$1,069 |
| Other Public | \$290 | \$0 |
| The Act | NA | \$2,877 |
| Total Administration | \$14,021 | \$4,335 |

a/ Assumes that current payers would continue to provide wrap-around coverage for services now covered under these plans that would not be covered by the Act.
b/ Includes administrative costs for nursing home and other wrap-around services such as nonemergency transportation.
c/ Includes the cost of administering only the health benefits payments actually made in 2006.
Source: Lewin Group estimates.

In addition, there would continue to be administrative costs for medical insurance for services not covered under the Act. These include:

- There would be an additional $\$ 84$ million in administrative costs for supplemental benefits provided by employers. These costs are associated with our assumption that employers would provide wrap-around coverage for services that are covered under existing employer health plans that would not be covered under the program such as private rooms (unless determined to be medically necessary) and cosmetic orthodontia (see: "Key Assumptions" section of this report);
- Medicaid would continue to provide coverage for nursing home care, which is not in the SB 921 benefits package, and certain other services such as non-emergency transportation and
some ESRD services. Total administrative costs for these services would be $\$ 304$ million; and
- There would continue to be administrative costs for the medical component of the workers compensation program, which is left unchanged under the Act we simulated.

This reduces the cost of insurer administration from $\$ 14.0$ billion under the current system to about $\$ 4.3$ billion, for a net savings of $\$ 9.7$ billion under the program, assuming full implementation in 2006.

## C. Physician Administrative Costs

We have defined physician administrative costs to include all physician overhead expenditures attributed to functions other than those directly related to patient care. Administrative costs include expenditures for business office staff, medical receptionists, claims filing and collections, utilization review and quality assurance, marketing, office space for administrative personnel and other general administrative costs such as office managers, interest, and insurance costs. Administrative costs also include the value of physician time devoted to practice management and insurer related functions such as claims adjudication and selective contracting negotiations. Administrative costs do not include the cost of medical supplies, laboratory and radiological services, and facilities related to patient care (e.g., rent for examining rooms, etc.).

The Act would reduce physician administrative costs for those covered under the program. This would be done by providing reimbursement for this population through a single source using standardized payment levels and reimbursement rules without cost-sharing requirements except co-payments for specialist services provided without referral. The program would also eliminate many of the utilization management programs used by insurers.

We estimate that physician administrative costs for care provided to the California population would be reduced by about 30 percent under the Act for a savings of about $\$ 6.6$ billion in 2006. We estimated these savings based upon several assumptions on how the program would affect each of about 25 administrative cost centers (e.g., business office, etc.) for physicians. These assumptions are based upon an evaluation of existing administrative functions, interviews with industry analysts, and experience with public programs.

In this section, we explain how we estimated the potential savings in physician administrative costs under the program in California. We begin by explaining how we estimated physician administrative costs under the current system.

## 1. Physician Administrative Costs Under Current Policy

Comprehensive data on physician overhead and administrative costs in California are unavailable. Consequently, we estimated physician administrative expenses based upon average physician administrative expenditures reported in a nation-wide survey of physician groups conducted by the Medical Group Management Association (MGMA). ${ }^{31}$ The MGMA

[^21]survey is based upon a sample of multi-specialty medical groups which provides detailed information on medical group expenditures for various categories of physician staff, information services, and overhead expenses for facilities, equipment, and supplies.

As discussed above, we estimate that total physician patient revenues in California would be about $\$ 60.3$ billion in 2006. For purposes of this analysis, we assume that physician revenues in California are distributed across administrative functions as reported in the MGMA data. These data indicate that about 36 percent of physician revenues are used for administration. The distribution of physician revenues for the worker and dependent population in California is presented in (Figure A-4) based upon the MGMA data.

The key assumption in developing these estimates is that the groups surveyed are representative of medical practices throughout the state. In fact, these data may be biased because they include only multi-specialty groups who are members of MGMA, many of whom contract with service organizations to perform claims processing functions. Also, it is a selfreported survey with only a 22 percent response rate. Therefore, the survey may not be strictly representative of providers. Although there are problems in generalizing from the MGMA survey, these data are the best source of information available on various categories or physician administrative and overhead expenditures.

However, the MGMA data do not provide information on the proportion of physician time devoted to administrative functions. We estimated the cost of physician time attributed to administration based upon an American Medical Association (AMA) survey showing that physicians devote about 10 percent of their professional activities to functions other than patient care. ${ }^{32}$ Based upon these data, we estimate the value of physician time devoted to administration to be $\$ 1.9$ billion in 2006. ${ }^{33}$ Further analysis of AMA data indicates that about 60 percent of this time is attributed to functions related to complying with insurer requirements. ${ }^{34}$

## 2. Single Source Reimbursement

Some of the physician administrative cost savings are attributed to the use of a single source for reimbursement with a uniform co-payment requirement. Physicians are typically required to submit claims for people covered under public programs and often extend this service to privately insured patients as well. The cost of filing claims is inflated by the fact that physicians

Management Association (MGMA), "The Cost and Production Survey Report: 2000 Report," Denver, CO, 2000.
${ }^{32}$ American Medical Association (AMA), Socioeconomic Characteristics of Medical Practice, Centers for Health Policy Research, 2000.
${ }^{33}$ We estimated the value of physician time spent on administration by taking 8.0 percent of net physician revenues as estimated in Figure A-4.
${ }^{34}$ The AMA data indicate that physicians spend about six minutes per claim in complying with insurer requirements, which we estimate is equivalent to about 120 hours per physician per year. We estimated annual hours per physician spent on claims by multiplying the number of visits per year ( 3.1 visits per person) by six minutes and dividing this over the number of physicians (excluding retired physicians, administrators and physicians in institutions). See; American Medical Association (AMA), "The Administrative Burden for Health Insurance on Physicians," Socioeconomic Characteristics of Medical Practice, Centers for Health Policy Research, 2000-2001 edition.
often file claims with many different insurance companies, each with their own reimbursement rules. Moreover, physicians typically must obtain reimbursement for amounts not covered by the insurer from either the patient or secondary sources of insurance through an additional bill to the patient.

Figure A-4

## Estimated Physician Revenues and Expenses for California in 2006 under Current Policy (In millions)

|  | Total Revenues by Expenses a/ | Direct Patient Care Expenses | Expenses Attributed to Administration b/ |
| :---: | :---: | :---: | :---: |
| Total Non-Physician Salaries and | \$22.5 | \$8.5 | \$14.0 |
| Benefits c/ |  |  |  |
| General Administrative | 2.4 | -- | 2.4 |
| Business Office | 3.0 | -- | 3.0 |
| Managed Care Administrative | 0.7 | -- | 0.7 |
| Information Services | 0.5 | -- | 0.5 |
| Housekeeping, Maintenance/Security | 0.4 | -- | 0.4 |
| Medical Receptionists | 2.8 | -- | 2.8 |
| Medical Secretaries, Transcribers | 1.2 | -- | 1.2 |
| Medical Records | 1.2 | -- | 1.2 |
| Other Administrative Support | 0.7 | -- | 0.7 |
| Registered Nurses d/ | 2.0 | 1.8 | 0.2 |
| Licensed Practical Nurses d/ | 1.7 | 1.5 | 0.1 |
| Medical Assistants, Nurse Aides d/ | 1.9 | 1.7 | 0.2 |
| Clinical Laboratory | 1.1 | 1.1 | 0.0 |
| Radiology, Imaging | 0.8 | 0.8 | 0.0 |
| Other Medical Support Services | 1.2 | 1.3 | 0.0 |
| Total General Operating Cost | 14.7 | 8.6 | 6.1 |
| Information Services | 1.0 | -- | 1.0 |
| Medical and Surgical Supply | 2.5 | 2.5 | 0.0 |
| Building and Occupancy e/ | 3.3 | 2.5 | 0.8 |
| Furniture, Equipment e/ | 0.9 | 0.7 | 0.2 |
| Admin Supplies and Services | 1.0 | -- | 1.0 |
| Prof Liability Insurance | 0.8 | -- | 0.8 |
| Other Insurance Premiums | 0.1 | -- | 0.1 |
| Outside Professional Fees | 0.6 | -- | 0.6 |
| Promotion and Marketing | 0.3 | 0.2 | 0.1 |
| Clinical Laboratory | 1.2 | 1.2 | 0.0 |
| Radiology, Imaging | 0.6 | 0.6 | 0.0 |
| Other Ancillary Services | 0.7 | 0.7 | 0.0 |
| Misc. Operating Cost | 1.3 | -- | 1.3 |
| Total Non-Physician Expenses | 37.2 | 17.1 | 20.1 |
| Physician Expense f/ | 23.1 | 21.2 | 1.9 |
| Patient Care g/ | 20.2 | -- | 0.0 |
| General Administration | 0.7 | -- | 0.7 |
| Medical Records | 0.1 | -- | 0.1 |
| Pre-Service Utilization Management | 0.1 | -- | 0.1 |
| Utilization Review | 0.3 | -- | 0.3 |
| Claims Denial and Adjudication | 0.6 | -- | 0.6 |
| Total Net Patient Revenues | \$60.3 | \$38.3 | \$22.0 |

a/ Our estimates of physician net patient revenues in California (see Appendix B) under current policy were allocated across physician expense and physician income categories based upon the distribution of net patient revenues by these expense groups reported in "The Cost and Production Survey report," Medical Group Management Association (MGMA), Denver, CO.
b/ Physician expenses attributed to administration were estimated by allocating costs to expense categories not directly attributable to providing patient care.
c/ Non-physician staff expenses include wages, salaries, and payroll taxes. Additionally, benefit costs and contracted/temporary labor costs were allocated proportionally across all non-physician subcategories. Management fees paid out were allocated across all non-medical staff subcategories. d/Data are not available on physician office nurses' time devoted to administrative functions. Based upon interviews with industry analysts and physician office managers, we assume that 10 percent of nurses' time is devoted to complying with insurer utilization management program requirements. $e /$ Building and furniture expenditures were attributed to administrative functions in proportion to the allocation of other physician costs to administrative functions (approximately 35 percent).
$\mathrm{f} / \mathrm{Physician}$ expense is net physician revenue, which includes physician salary, fringe benefit costs, and net proceeds for physicians.
g/ The physician expense attributed to patient care is based on the American Medical Association's (AMA) estimate of the hours spent on patient care activities (approximately 92 percent). The remaining hours were divided between administrative functions based upon interviews with industry analysts and the AMA's estimates of physician time spent per claim filed. See: "Socioeconomic Characteristics of the Medical Practice," American Medical Association, 2001.
Source: Lewin Group estimates.

The program would substantially reduce physician claims filing costs by standardizing the means of reimbursement through a single insurer. Under the Act, physicians obtain payment in full from a single source. This eliminates the complexity of dealing with varying rules and procedures for multiple insurers, eliminates secondary filing and billing for uncovered amounts (i.e., balance billing is eliminated), and permits physicians to streamline paper work through electronic claims transmittal. For many physicians, these changes will represent substantial savings in administrative costs and may imply more timely reimbursement.

However, some physicians have already realized some of these efficiencies. For example, many physicians already transfer claims electronically for large volume carriers such as Medicare. Also, some Californians are enrolled in pre-paid plans such as $\mathrm{HMO}^{\prime}$, where claims filing requirements are often minimal. Moreover, up to 25 percent of physicians now require cash or credit card payment from privately insured patients at the point-of-service leaving the individual to obtain reimbursement from the insurer. ${ }^{35}$ From a physicians perspective, this can be a very timely and efficient means of collecting reimbursement. If under the Act the physician is required to file forms directly with insurers, these physicians would incur the additional costs of filing forms and delayed reimbursement. (Eliminating the need for patients to file claims will have a corresponding benefit to consumers, which to a degree offsets this added cost.)

Savings to physicians in claims processing costs will vary across practices depending upon the extent to which they now perform the billing function, their current degree of automation, and the extent to which physicians now engage in balance billing. Interviews with industry analysts indicate that the program could reduce claims filing and billing costs by as much as two-thirds for physicians that routinely file claims on behalf of their patients. However, because many physicians have already realized some of these efficiencies, we assumed that physician administrative costs associated with claims filing and patient billing would be reduced by an average of about 25 percent under the program. These savings apply primarily to business office staff, medical receptionists, secretarial staff, and information services expenses (Figure A5).
${ }^{35}$ Lewin Group estimate based upon a review of data on physician enrollment in various forms of provider networks.

Figure A-5

## Estimated Changes in Physician Administrative Costs Under the Act in California in 2006

|  | Administrative Expenses a/ | Assumed Percent Reduction | Estimated Savings |
| :---: | :---: | :---: | :---: |
| Total Support Staff | \$14.0 | 36\% | \$4.9 |
| General Administrative b/ | 2.4 | 25\% | 0.6 |
| Business Office c/ | 3.0 | 50\% | 1.5 |
| Managed Care Administrative d/ | 0.7 | 50\% | 0.3 |
| Information Services e/ | 0.5 | 50\% | 0.3 |
| Housekeeping, Maintenance/Security | 0.4 | 0.0\% | 0.0 |
| Medical Receptionists f/ | 2.8 | 37\% | 1.0 |
| Medical Secretaries, Transcribers f/ | 1.2 | 37\% | 0.4 |
| Medical Records g/ | 1.2 | 10\% | 0.1 |
| Other Administrative Support h/ | 0.7 | 0.0\% | 0.0 |
| Registered Nurses i/ | 0.2 | 100\% | 0.2 |
| Licensed Practical Nurses i/ | 0.1 | 100\% | 0.1 |
| Medical Assistants, Nurses Aides d/ | 0.2 | 100\% | 0.2 |
| Total General Operating Cost | 6.1 | 18\% | 1.0 |
| Information Services j/ | 1.0 | 50\% | 0.5 |
| Building and Occupancy $\mathrm{k} /$ | 0.8 | 17\% | 0.1 |
| Furniture, Equipment $\mathrm{k} /$ | 0.2 | 16\% | 0.0 |
| Admin Supplies and Services k/ | 1.0 | 16\% | 0.2 |
| Prof Liability Insurance | 0.8 | 0.0\% | 0.0 |
| Other Insurance Premiums | 0.1 | 0.0\% | 0.0 |
| Outside Professional Fees | 0.6 | 0.0\% | 0.0 |
| Promotion and Marketing | 0.1 | 0.0\% | 0.0 |
| Misc. Operating Cost | 1.3 | 19\% | 0.2 |
| Total Non-Physician Expenses | 20.1 | 29\% | 5.9 |
| Physician Expense | 1.9 | 40\% | 0.7 |
| General Administration I/ | 0.7 | 25\% | 0.2 |
| Medical Records | 0.1 | 0.0\% | 0.0 |
| Pre-Service Utilization Management m/ | 0.1 | 100\% | 0.1 |
| Utilization Review | 0.3 | 0.0\% | 0.0 |
| Claims Denial and Adjudication | 0.6 | 67\% | 0.4 |
| Total Administrative Cost | \$22.0 | 30\% | \$6.6 |

a/ Administrative expenses derived in Figure A-4.
b/ Includes executive personnel, financial officers, marketing personnel, purchasing department employees, and secretaries associated with group practice administration. Administrative staff expenses are assumed to be reduced in proportion to the reduction in other personnel expenses (physician and non-physician) under the Act.
c/ Includes individuals responsible for billing, credit, accounting, and bookkeeping functions. We assume these functions will be reduced by about 50 percent due to standardizing of co-payment requirements.
d/ Includes individuals responsible for utilization review. We assume these administrative functions will be reduced by 50 percent with elimination of multiple payers and requirements.
e/ Includes individuals responsible for data processing and telecommunications. We assume these costs would be reduced by 50 percent under the Act.
$\mathrm{f} /$ We assume that half of the time of medical receptionists and secretaries is related to certification of health insurance coverage and billing. We further assume that this portion of their functions are reduced by 75 percent under the Act.
g/ Medical records keeping functions will remain largely unchanged under the program, because medical records still will be required for maintaining patient medical histories, medical malpractice protection, and utilization review. However, we assume 10 percent savings in medical records costs due to standardization of insurance coverage data and utilization review requirements. $\mathrm{h} /$ Includes employees involved in maintenance, mail room and cafeteria services. We assume no reduction in the expenses for these employees.
i/ Includes medical staff engaged in utilization management functions which are eliminated.
j/ Expenses for information services functions include billing, claims filing, and service bureau fees. Also includes equipment, software, and telecommunications costs. We assume these costs would be 50 percent reduced under the program.
$\mathrm{k} / \mathrm{We}$ assume that building costs, furniture, equipment, and administrative supply costs will decrease in proportion to the reduction in non-physician staff expenses.
1/ We assume that general administrative costs would be reduced by 25 percent due to the elimination of selective contracting negotiations (PPO's, etc.).
$\mathrm{m} /$ Costs associated with pre-service utilization management will be eliminated because these functions are not performed under the Act.
Source: Lewin Group estimates.

## 3. Standardization of Reimbursement Rules

A major portion of physician administrative costs can be traced to the differing coverage and reimbursement rules used by insurers. Insurers often have different rules concerning covered services, service bundling, documentation requirements, and allowable reimbursement levels. Physicians and their staff devote substantial amounts of time to appeals and adjudication of denied claims and reduced levels of reimbursement. Some physicians also devote substantial amounts of time to establishing and negotiating selective contracting arrangements with insurers.

The program would minimize adjudication of claims and eliminate the need to negotiate selective contracting arrangements. We estimate that physicians now spend $\$ 60.0$ million on appeals and adjudication of denied claims. Based upon interviews with industry analysts, we assume that these activities would be reduced by about two-thirds under the program (some adjudication issues will remain concerning procedure classification and bundling of services). We also estimate that physician general administrative costs would be reduced by about 25 percent due to the elimination of selective contracting negotiations (Figure A-5).

Standardization of claims forms would result in some savings. However, these savings are likely to be small, since most insurers are now accepting the CMS 1500 claims form and most information service contractors have developed software which prints claims forms according to insurer specific formats. The primary advantage of the standardized format is that it facilitates electronic claims transmission which could potentially reduce costs. ${ }^{36}$

## 4. Utilization Management Programs

[^22]The Act would eliminate many of the utilization management programs used by private insurers and managed care plans in the state. This would eliminate most of the cost of physician and staff time devoted to such functions as pre-certification, second surgical opinion, concurrent utilization review, and case management. While most of these pre-service utilization management functions are performed by medical personnel employed by the physician, some physician time will be saved as well. (Physician involvement is usually greatest in utilization review.)

We assume that all physician and non-physician time attributed to compliance with utilization management programs would be eliminated under the program. There would be no change in utilization review costs however, because the Act for California is assumed to have such a program.

## D. Hospital Administrative Expenses

In this analysis, we define hospital administrative costs to include all labor and overhead expenditures attributed to functions other than those directly related to patient care. Administrative costs include all fiscal services including general accounting, patient accounting, credit and collections, admitting and other fiscal services. Administration also includes general hospital administration, public relations, data processing, medical records functions, and rent and depreciation for facilities and equipment assigned to administration. For purposes or this discussion, we classify net-revenues (i.e., profits) as part of administrative overhead. Administrative costs do not include the cost of medical professional staff, medical supplies, laboratory and radiological services, and facilities and equipment directly related to direct patient care.

The Act would all but eliminate hospital administrative costs associated with filing claims. Hospitals are given an annual operating budget covering all services provided by the hospital. Each hospital is responsible for allocating resources so that total expenditures remain within these budget constraints. Claims are no-longer submitted for reimbursement, reducing the need for record keeping and eliminating all hospital claims processing costs for both the provider and the insurer. Costs associated with negotiating price discounts with insurance carriers are also eliminated.

In this section, we explain how we estimated the potential savings in hospital administrative costs under the Act. We begin by explaining how we estimated hospital administrative costs under current policy.

## 1. Administrative Costs Under Current Policy

The California Office of Statewide Health Planning and Development (OSHPD) collects cost accounting data for all hospitals in the state. Detailed hospital expenditure data are reported by cost center (i.e., patient care, fiscal services, etc.) which can be used as a basis for estimating nationwide hospital administrative expenditures. This provides a detailed representation of hospital spending for both administrative and non-administrative functions (Figure A-6).

Figure A-6
Allocation of Hospital Revenues by Cost Center and Patient Care Function in 2006
(in billions)

|  | California Hospital Care Expense | Expenses Attributed to Patient Care | Value Allocated to Administration |
| :---: | :---: | :---: | :---: |
| Total Adjusted Hospital Operating Revenue b/ | \$51.97 | \$35.59 | \$16.38 |
| Daily Hospital and Ancillary Services Cost | \$29.93 | \$29.93 | -- |
| Research Costs | \$0.25 | -- | \$0.25 |
| Education Costs | \$0.72 | -- | \$0.72 |
| General Costs | \$7.56 | \$4.38 | \$3.18 |
| Printing and Duplicating | 0.08 | -- | 0.08 |
| Non-Patient Food Services | 0.60 | -- | 0.60 |
| Dietary | 0.62 | 0.63 | 0.00 |
| Laundry and Linen | 0.26 | 0.26 | 0.00 |
| Social Work Services d/ | 0.19 | 0.12 | 0.07 |
| Purchasing and Stores | 0.29 | -- | 0.29 |
| Grounds | 0.04 | -- | 0.04 |
| Security | 0.16 | -- | 0.16 |
| Parking | 0.05 | - | 0.05 |
| Housekeeping e/ | 0.70 | 0.61 | 0.09 |
| Plant Operations \& Maintenance e/ | 1.60 | 1.39 | 0.21 |
| Communications | 0.46 | -- | 0.46 |
| Data Processing | 0.89 | -- | 0.89 |
| Other General Services | 0.06 | 0.06 | 0.00 |
| Fiscal Services | \$2.11 | -- | \$2.11 |
| General Accounting | 0.55 | -- | 0.55 |
| Patient Accounting | 0.63 | -- | 0.63 |
| Credit \& Collection | 0.40 | -- | 0.40 |
| Admitting | 0.39 | -- | 0.39 |
| Other Fiscal Services | 0.05 | -- | 0.05 |
| Administrative Services | \$6.63 | -- | \$6.63 |
| Hospital Administration | 2.80 | -- | 2.80 |
| Public Relations | 0.35 | -- | 0.35 |
| Personnel | 0.40 | -- | 0.40 |
| Employee Health Services | 0.05 | -- | 0.05 |
| Auxiliary Groups | 0.05 | -- | 0.05 |
| Chaplaincy Services | 0.05 | -- | 0.05 |
| Medical Library | 0.05 | -- | 0.05 |
| Medical Records | 0.72 | -- | 0.72 |
| Medical Staff Administration | 0.30 | -- | 0.30 |
| Nursing Administration | 0.50 | -- | 0.50 |
| In-service Education - Nursing | 0.20 | - | 0.20 |
| Utilization Management | 0.34 | -- | 0.34 |
| Community Health Education | 0.04 | -- | 0.04 |
| Other Administrative Services | 0.47 | -- | 0.47 |


|  | California <br> Hospital Care <br> Expense | Expenses <br> Attributed to <br> Patient Care | Value Allocated <br> to <br> Administration |
| :--- | ---: | ---: | ---: |
| Unassigned Costs | $\$ 3.32$ | $\$ 1.21$ | $\$ 2.11$ |
| Depreciation and Amortization e/ | 0.96 | 0.83 | 0.12 |
| Leases and Rentals e/ | 0.40 | 0.35 | 0.05 |
| Insurance - Hospital and Prof. Malpractice | 0.43 | -- | 0.43 |
| Insurance - Other | 0.15 | -- | 0.15 |
| Licenses and Taxes (Other than Income) | 0.10 | -- | 0.10 |
| Interest - Working Capital | 0.35 | -- | 0.35 |
| Interest - Other | 0.66 | -- | 0.66 |
| Employee Benefits (non-payroll related) | 0.51 | -- | 0.05 |
| Other Unassigned Costs | 0.10 | -- | 0.10 |
| Total Operating Expenses | $\$ 50.59$ | $\$ 35.59$ | $\$ 15.00$ |
| Net Operating Revenue | $\$ 1.38$ | -- | $\$ 1.38$ |

a/ A projected value for total California hospital operating revenues, based on CMS National Health Accounts data, was allocated to cost centers based on California hospital data from the California Office of Statewide Health Planning and Development (OSHPD). For certain subcategories of expenses that are no longer published in the OSHPD data, we allocated the most recent OSHPD expenses to subcategories in proportion to the amounts reported for these subcategories as reported in the 1989 data.
b/ Includes gross patient revenues less contractual adjustments, bad debts, and charity care as well as non-patient operating revenue and non-operating revenue such as interest income.
c/ Includes direct costs associated with all inpatient and outpatient care functions. Direct expenses include salaries and wages, employee benefits, professional fees, supplies, purchased services, equipment depreciation/leases/rentals, other direct expenses, and transfers.
d/ Based upon interviews with industry analysts, we assume that about 40 percent of social services functions are associated with arranging coverage under Medi- Cal and other public programs. The remainder is attributed to patient care functions such as discharge planning and interpreting social problems as they relate to medical conditions and hospitalization.
e/ Data is not available allocating facilities costs to administrative and non-administrative functions. We assume that expenses for plant maintenance, housekeeping, depreciation, and leasing and rental expense are attributed to administrative functions in proportion to the percentage of hospital income attributed to administration (13 percent).
Source: Lewin Group estimates.

## 2. Changes in Administration Under the Act

We estimate that hospital administrative costs would be reduced by about 12 percent under the Act for a savings of $\$ 3.6$ billion in 2006. These savings are attributed to: (1) the elimination of individual patient billing and accounting; (2) elimination of selective contracting negotiations; and (3) regulation of profit distributions to shareholders in for-profit hospitals. These savings were estimated using explicit assumptions on how the Act would affect individual cost centers. These assumptions are based upon an evaluation of existing administrative functions and interviews with industry analysts. The methods used to estimate savings associated with these changes are discussed below.

## 3. Patient Accounting and Collections

We estimate that hospitals will spend about $\$ 800$ million on patient accounting, and credit and collections in 2006. This includes staff salaries, benefits and data processing costs. Another \$300
million will we spent on patient admitting, much of which is attributed to collecting and confirming insurance information.

Patient accounting and billing functions are virtually eliminated under the Act. Under the Act system, hospitals operate within annual budgets where individual patient accounting is not necessary. Claims are no longer submitted for each patient and patients are not billed for services. Patient billing will continue only for out-of-state residents and for physician services provided by satellite facilities where fee-for-service billing continues. We assume that patient accounting and credit and collections expenses will be reduced by 90 percent under the Act (Figure A-7).

Patient admitting functions will also be greatly simplified due to the uniformity of coverage provided under the Act. Nationwide, hospitals currently deal with over 1,500 separate insurers, each with their own forms and rules regarding covered services and prior authorization. Many of these administrative functions are performed by the admitting staff. We assume that admitting expenses will be reduced by 40 percent under the Act. Admitting will continue to be a significant cost center, however, due to the continuing need to collect basic information from the patient (i.e., name, address, next of kind, room assignment, physician information, etc.).

## 4. Provider Discounts

A substantial portion of hospital administrative expenses are associated with selective contracting negotiations. Hospitals typically negotiate discounts with major insurers. Many hospitals also negotiate discounts with HMO's and other managed care plans in an effort to increase/maintain patient volume. In regulated states, administrators devote large amounts of time to rate negotiations and appeals. Many hospitals have also mounted legal challenges to reimbursement policies under state Medicaid programs. In addition, hospitals engage in public relations programs to secure philanthropic contributions.

Much of this expense could be eliminated under the Act. Selective contracting activities would be eliminated through standardization of coverage and the use of hospital operating budgets. It is possible that some reduction in rate appeals and litigation activity will occur as the focus of hospital rate setting is shifted from per-case reimbursement levels to aggregate spending limits. However, the constitutional guarantees of due process in the U.S. could result in higher levels of litigation under the Act.

While the impact of the Act on these costs is difficult to estimate, substantial savings are likely. Based upon interviews with industry analysts, we assume that these changes in administrative practices will reduce general hospital administrative costs by 25 percent (Figure A-7). However, substantial general administrative costs are expected to continue for internal management functions.

Figure A-7

## Change in Hospital Administrative Costs Under the Act in 2006 (in billions)

|  | Administrative Costs al | Assumed Percent Reduction | Savings The Act |
| :---: | :---: | :---: | :---: |
| Research Costs | \$0.25 | 0.0\% | \$0.00 |
| Education Costs | \$0.72 | 0.0\% | \$0.00 |
| General Costs | \$3.18 | 16\% | \$0.51 |
| Printing and Duplicating b/ | 0.08 | 35\% | 0.03 |
| Non-Patient Food Services | 0.60 | 0.0\% | 0.00 |
| Social Work Services c/ | 0.19 | 50\% | 0.04 |
| Purchasing and Stores | 0.29 | 0.0\% | 0.00 |
| Grounds | 0.04 | 0.0\% | 0.00 |
| Security | 0.16 | 0.0\% | 0.00 |
| Parking | 0.05 | 0.0\% | 0.00 |
| Housekeeping d/ | 0.70 | 35\% | 0.03 |
| Plant Operations \& Maintenance d/ | 1.60 | 35\% | 0.07 |
| Communications | 0.46 | 0.0\% | 0.00 |
| Data Processing b/ | 0.89 | 35\% | 0.31 |
| Fiscal Services | \$2.11 | 53\% | \$1.12 |
| General Accounting e/ | 0.55 | 0.0\% | 0.00 |
| Patient Accounting f/ | 0.63 | 90\% | 0.58 |
| Credit \& Collection f/ | 0.40 | 90\% | 0.36 |
| Admitting g/ | 0.39 | 40\% | 0.16 |
| Other Fiscal Services | 0.05 | 0.0\% | 0.00 |
| Administrative Services | \$6.63 | 18\% | \$1.18 |
| Hospital Administration h/ | 2.80 | 25\% | 0.70 |
| Public Relations | 0.35 | 0.0\% | 0.00 |
| Personnel | 0.40 | 0.0\% | 0.00 |
| Employee Health Services | 0.05 | 100\% | 0.05 |
| Auxiliary Groups | 0.05 | 0.0\% | 0.00 |
| Chaplaincy Services | 0.05 | 0.0\% | 0.00 |
| Medical Library | 0.05 | 0.0\% | 0.00 |
| Medical Records i/ | 0.72 | 10\% | 0.07 |
| Medical Staff Administration | 0.30 | 0.0\% | 0.00 |
| Nursing Administration | 0.50 | 0.0\% | 0.00 |
| In-service Education - Nursing | 0.20 | 0.0\% | 0.00 |
| Utilization Management | 0.34 | 100\% | 0.35 |
| Community Health Education | 0.04 | 0.0\% | 0.00 |
| Other Administrative Services | 0.47 | 0.0\% | 0.00 |
| Unassigned Costs | \$2.11 | 3\% | \$0.06 |
| Depreciation and Amortization d/ | 0.12 | 35\% | 0.04 |
| Leases and Rentals d/ | 0.05 | 35\% | 0.02 |
| Insurance - Hospital and Prof. Malpractice | 0.43 | 0.0\% | 0.00 |
| Insurance - Other | 0.15 | 0.0\% | 0.00 |
| Licenses and Taxes (Other than Income) | 0.10 | 0.0\% | 0.00 |
| Interest - Working Capital | 0.35 | 0.0\% | 0.00 |
| Interest - Other | 0.66 | 0.0\% | 0.00 |
| Employee Benefits (non-payroll related) | 0.05 | 0.0\% | 0.00 |
| Other Unassigned Costs | 0.10 | 0.0\% | 0.00 |
| Net Revenues | \$1.38 | 50.0\% | \$0.69 |
| Total Administrative Cost | \$16.38 | 22\% | \$3.56 |

a/ Based upon administrative data provided in Figure 4.
b/ We assume that data processing and printing expenses are reduced in proportion to the reduction in hospital administration and fiscal services costs
c/ Social work services are assumed to be reduced by 50 percent because hospitals will no longer need to assist patients in enrolling in Medi-Cal. However, we have assumed that some social work functions will continue, as the state is likely to retain programs servicing the special needs of certain populations (e.g., supplemental coverage for low-income people, home health arrangements, maternal and child health).
d/ We assume that administrative facilities related costs (i.e., plant maintenance, housekeeping, leases/rentals, and depreciation) will be reduced in proportion to the reduction in hospital administration and fiscal services expenditures.
e/ We assume no change in general accounting costs, since this cost center specifically excludes patient accounting and collection functions.
f/ Patient accounting and credit and collections functions are assumed to be reduced by 90 percent due to the elimination of patient billing.
$\mathrm{g} /$ We assume that admitting functions will be reduced by 40 percent due to simplification of insurance coverage verification procedures.
h/ Hospital administrative functions related to selective contracting negotiations will be eliminated. We assume this will result in savings of 25 percent of hospital administration expenditures.
i/ We assume that medical records costs will be reduced by 10 percent due to the elimination of multiple insurer sources.
Source: Lewin Group estimates.
We assume that there would be no change in hospital public relations costs. As under the current system, many hospitals rely heavily upon philanthropic contributions to provide a higher standard of care. In fact, a in a regulated environment, philanthropy may become even more important in maintaining and improving the quality of care in California hospitals. There fore, we assume that hospital funding costs under the Act will remain at least as high as under the current system.

## 5. Medical Personnel

Many administrative functions in hospitals are performed by nurses and other medical personnel. For example, nurses perform much of the records keeping function required for itemized billing by maintaining medical charts. However, we have classified the cost of these activities as patient care expenses because these tasks are also required to maintain appropriate records of medical treatment.

Moreover, these administrative functions would continue under the Act. For example, Statistics Canada reports that hospital floor nurses on average spend up to two hours per shift updating medical charts. ${ }^{37}$ Therefore, we assume no change in administrative functions performed by medical personnel (changes in costs for medical personnel classified as administrators are reflected in the estimates discussed above). However, we assume that medical records costs would be reduced by 10 percent due to standardization of insurer information requirements.

[^23]
## 6. Hospital Net Revenues

The OSHPD data indicates that net revenues for hospitals were equal to about 2.7 percent of total net revenues (i.e., charges less contractual allowances) in 2000. These net revenues correspond to profits in for-profit hospitals that may be paid to investors as dividends or retained by the hospital to fund capital improvements. In not-for-profit hospitals, these net revenues are typically used to fund the hospital's charitable mission or used for new capital investment.

For illustrative purposes, we assumed that hospital net-revenues will be reduced by about half under the Act. This implicitly assumes that hospital profits will be limited under the hospital budgeting process in for-profit hospitals. It also assumes that the need for charity care from not-for-profit hospitals is reduced due to universal coverage. However, we assume that some net revenues will be required as a return on capital for private investors and that some funds also would be required for capital improvements.

## APPENDIX B HEALTH EXPENDITURES IN CALIFORNIA UNDER CURRENT LAW

The Lewin Group developed estimates of coverage and health expenditures in California for 2006 under current policy. This includes current law spending by state and local governments, employers, households and the federal government. These estimates were developed using the Lewin Group Health Benefits Simulation Model (HBSM), which is specifically designed to provide these detailed spending data at the state level.

Unfortunately, no one maintains a detailed accounting of all health expenditures in the state. This is because our current multi-payer system does not require the kind of centralized systems for paying for health care services that would be conducive to collecting and evaluating overall health expenditures. For example, payment systems for government health benefits programs are completely separate from private payment systems. Also, private employer health plans generally maintain separate health data systems that are not conducive to tracking health expenditures for individual geographic areas such as states. For example, some California workers are employed in firms where the corporation and its health plan are headquartered out-of-state. Similarly, some out-of-state workers are covered under plans based in California. Consequently, it is extremely difficult to obtain data on health plan expenditures under public and private health plans for any given state.

Our approach is to piece together estimates of health spending by source of payment and type of service from the limited data that are available. For example, the Center for Medicare and Medicaid Services (CMS) has developed estimates of total health spending by type of service for each state between 1980 and 1998 (data through 2001 is expected to be published shortly), and provide separate information on state health spending for Medicare and Medicaid through 2003. While data on spending for government programs in the state are available, comparable information on health spending under specific types of private insurance and household out-ofpocket spending generally is not available for individual states.

We estimated these spending amounts using data from the Medical Expenditures Panel Survey (MEPS) data. The MEPS is a survey of households that provides information on the sources and uses of funds under private insurance and the levels of household out-of-pocket and premium expenditures. Information from all of these sources was incorporated into our analysis to develop a detailed accounting of health spending in California.

This process required converting some of the health spending data from these various sources to be comparable to the total health spending data reported by CMS for California. This included: converting government program spending from government-fiscal-year to calendaryear dollars; projecting CMS health spending estimates to 2006; eliminating all double counting of expenditures for public programs; and adjusting the government program data to exclude non-health items that are included in national health spending estimates.

Our estimates of health spending for California are presented below, together with a description of the data and methods used. Our discussion is presented in the following sections:

- Health Spending Accounts for California
- Health Spending under Public Programs
- Health Spending for Private Payers
- Administrative Costs
- California Health Spending in 2006


## A. Health Spending Accounts for California

In this analysis, we developed detailed estimates of health spending by type of service and source of payment for California that is similar in content to the CMS National Health Expenditures (NHE) data. These data were developed based upon data collected from various public and private sources within the state as well as the limited state-level information provided by CMS. We also used a household survey of health services utilization to estimate utilization for services where state-level data do not exist. The objective is to provide a matrix of health spending for 2006 corresponding to the NHE. Figure B-1 summarizes our estimates of health spending by type of service and source of payment in 2006.

Figure B-1
Health Expenditures for California Residents by Type of Service and Source of Payment in 2006 Under Current Law (in millions) ${ }^{\text {a/ }}$

Expenditures by Type of Service
Expenditures by Source of Payment


Total Spending = \$184.2
a/ The cost of administration for physicians, hospitals and other providers is included in the expenditure amounts for each of these types of services.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Estimates of health spending in California were developed separately for public programs and private payers. Health spending for public programs was collected from various State and Federal agencies. Estimates of private health spending were developed using the CMS health
spending data in conjunction with household survey data on health care utilization and surveys of employer premiums in California. The following sections describe the data and methods used to estimate health spending in California by type of service and source of payment.

## B. Health Spending Under Public Programs

We first estimated the amount of spending by type of service under Medicare, Medi-Cal (including Healthy Families and Aid to Mothers and Infants) and other state and local programs. As discussed above, this information is available for these payer categories. Some of the government figures were adjusted to conform to the calendar years used in our analysis and to eliminate double counting of expenditures. Figure B-2 presents our estimates of public health program spending in 2006 by type of service and source of payment.

The data and methods used to develop these estimates are discussed below:

Figure B-2
Expenditures for Health Care Services in California by Source of Payment Under Current Law in 2006

$$
\text { (in millions) }^{a /}
$$

| Type of Service | Total | Medicare | Medi-Cal $/$ <br> HFP $/$ AIM | Other <br> Public | Worker's <br> Comp | All Private <br> Payors |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Total Personal Health Care | $\$ 170,213$ | $\$ 35,633$ | $\$ 25,742$ | $\$ 5,891$ | $\$ 5,094$ | $\$ 97,853$ |
| Hospital Care | $\$ 51,053$ | $\$ 16,356$ | $\$ 9,451$ | $\$ 2,408$ | $\$ 1,968$ | $\$ 20,869$ |
| Physicians Services | $\$ 60,327$ | $\$ 11,011$ | $\$ 3,689$ | $\$ 979$ | $\$ 2,111$ | $\$ 42,537$ |
| Dental Services | $\$ 11,937$ | $\$ 15$ | $\$ 816$ | $\$ 0$ | $\$ 0$ | $\$ 11,106$ |
| Other Professional Services | $\$ 7,575$ | $\$ 1,099$ | $\$ 295$ | $\$ 92$ | $\$ 688$ | $\$ 5,401$ |
| Home Health | $\$ 2,103$ | $\$ 1,235$ | $\$ 161$ | $\$ 0$ | $\$ 0$ | $\$ 707$ |
| Prescription Drugs | $\$ 19,435$ | $\$ 3,516$ | $\$ 2,724$ | $\$ 0$ | $\$ 308$ | $\$ 12,887$ |
| Medical Durables | $\$ 2,507$ | $\$ 1,109$ | $\$ 230$ | $\$ 21$ | $\$ 18$ | $\$ 1,129$ |
| Nursing Home Care | $\$ 8,048$ | $\$ 1,292$ | $\$ 3,662$ | $\$ 0$ | $\$ 0$ | $\$ 3,094$ |
| Other Personal Health Care | $\$ 3,983$ | $\$ 0$ | $\$ 1,468$ | $\$ 2,391$ | $\$ 0$ | $\$ 124$ |
| Home and Community Based <br> Services | $\$ 2,333$ | $\$ 0$ | $\$ 2,333$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Federal DSH | $\$ 913$ | $\$ 0$ | $\$ 913$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |

a/Estimates exclude public health, insurer administration (estimated below), and non-prescription drugs.
$\mathrm{b} /$ Health spending includes medical benefits costs under the worker's compensation program. As discussed above, workers compensation medical benefits would remain separate from the program.
Source: Lewin Group estimates.

- Spending for Hospital Services was estimated using net patient revenues reported by California hospitals for Medicare, Med-Cal and all other payers to the Office of Statewide Planning and Development (OSHPD) for 2002. Hospital spending was projected to 2006 using the growth in hospital spending nationally as estimated by CMS.
- Medicare: Data on Medicare spending in California by type of service in 1998 is available from CMS. California Medicare spending was then projected to calendar year 2006 based on the national average rate of growth in Medicare spending by type of service during that period. We then estimated the cost of the Medicare prescription drug benefit (described below) and its impact on drug spending for other payers.
- Medi-Cal: Data on Medi-Cal spending by type of service was taken from the November 2003 Estimate of Medi-Cal Expenditures for State Fiscal Year 2003/04. This is the most current estimate of Medi-Cal spending. These data were adjusted as follows:
- The State Share of Disproportionate Share Hospital (DSH) Payments was excluded to reflect the fact that the state share is typically based upon intergovernmental transfers that are already counted as spending under the "Other Public" program category discussed below.
- Payments to State Hospitals and Transfers to the Department of Mental Health were excluded from Medi-Cal spending and counted as spending under the "Other Public" program category.
- Premium Payments to Medi-Cal HMOs were allocated across service categories in proportion to the distribution of spending for services potentially covered under the HMO as reported in the Medi-Cal Services and Expenditures Report for January 2000 through December 2000 for fee-for-service enrollees under the eligibility category for families.
- Medi-Cal Premium Payments to Medicare for eligible individuals were excluded because the Medicare payments for services provided to these recipients are already recorded in the Medicare expenditure column.
- The Medi-Cal Cost Estimates were converted from a fiscal-year to a calendar-year basis and then inflated to 2006 based on recent historical spending growth in the Medi-Cal program. Expenditures were reduced by 10 percent to account for spending reductions under the Governor's proposed budget for 2004/05.
- Drug Spending Maintenance of Effort payments are excluded so we do not double count the drug spending that will be covered under Medicare by 2006.
- Healthy Families (HFP) and Aid for Infants and Mothers (AIM): Estimated spending for AIM and the HFP Children's Program were supplied by MRMIB for FY 2004/05 and projected to CY2006 by The Lewin Group based on recent historical spending growth. Combined AIM and HF spending is estimated to be $\$ 994$ million in 2006 (exclusive of administration and outreach costs). Total spending was allocated across service categories in proportion to the distribution of spending for services reported Medi-Cal expenditures for the eligibility category for families.
- Spending for the Medical Component of Workers Compensation: The medical component of the Workers Compensation program is part of state-wide health spending, although it would not be folded into the Act described above (it could be in the future). Workers

Compensation medical payments increased from $\$ 2.6$ billion in 1995 to $\$ 5.3$ billion in 2002, which is an average annual growth rate of about 10.7 percent per year. ${ }^{38}$ At this rate, spending would increase to about $\$ 7.9$ billion by 2006 . However, we need to adjust this estimate to reflect recent legislation (SB 228) intended to control program costs, including limits on the number of chiropractic and physical therapy visit covered per claim ( 24 visits each) and the development of guidelines for medical treatment. A recent study from the university of California Data/Survey Research Center indicates that the guidelines introduced in the bill would reduce medial claims costs by about 36 percent. ${ }^{39}$ Using this assumption, workers compensation paid medical claims would be about $\$ 5.1$ billion in 2006.

- Safety-net Programs: Safety-net spending for health services is estimated to be about $\$ 3.5$ billion. This includes state funded programs of $\$ 2.3$ billion and another $\$ 1.2$ billion in county funds (excludes funds transferred from the state to the counties). ${ }^{40}$ State spending includes funding from Proposition 99, finding for Community Health Clinics, AIDS program funding, County Indigent Care programs, and Realignment funds. We also estimate that Spending under these programs was allocated across service categories in proportion to the distribution of spending for 'Other Public Programs' reported in the MEPS database.
- Other State Programs: We also include the state general revenue funding for other health services provided by the Department of Mental Health (\$950 million) and the Department of Developmental Services ( $\$ 1.4$ billion). We include only the amounts of general revenue funds that are not already counted as part of the state match for Medi-Cal or Health Families.
- Spending for All Other Payers: These estimates are based on CMS data for total nonMedicare and non-Medicaid spending in California in 1998. These data were adjusted as follows:
- Non-Patient Revenues, which primarily consists of philanthropy, were excluded from these estimates because these funds are not direct payments to providers for patient care. We estimated non-patient revenues in California by type of service based on the national proportion of non-patient revenues to total private revenues.
- Spending Estimates were projected to 2006 by type of service. We computed the nonelderly per-capita rate of increase in national health spending, excluding Medicare and Medicaid spending, for each type of service from 1998 to 2006 using CMS projections. The 1998 California spending estimates for each type of service were then projected to 2006 using the national spending growth rates, which were adjusted for California specific spending growth of about 2 percent below the annual national average, plus California specific non-elderly population growth.

[^24]These data represent the best information now available on health spending for government programs in California. Spending under public programs in California represent roughly 45 percent of all personal health spending in the state (see Figure C-2). In this analysis, we assume that the amount of care in 2006 that is not accounted for by public programs is spending under the private sector.

## C. Health Spending for Private Payers

Private health spending includes household out-of-pocket spending, services covered under employer health plans and services covered under individually purchased insurance policies. For this analysis, we included spending for TRICARE/Military and Veterans as part of private health spending. As discussed above, we estimated the total amount of private health spending in California by subtracting the amount of total personal health spending for government programs in the state from the total amount of personal health spending for 1998 as estimated from CMS data. This was done separately for each category of service. However, these data do not provide estimates of how spending under these programs is distributed across various categories of private health spending including out-of-pocket costs and private insurance. The data and methods used to develop these estimates are discussed below:

Premium payments for employer sponsored insurance represents the largest portion of private health spending. We estimated total employer spending for health care, including both the employer and employee premium contributions, using data from the 2001 MEPS Survey of California Employers. These data provide estimates of total premium costs for California employers by firm size and individual/family coverage. We made the following adjustments to these premium amounts:

- The MEPS premium data were adjusted to exclude plan administrative costs and profits, which vary by firm size, as described below. This was done to estimate the portion of the premium associated with health care spending in order to be consistent with the definitions used by CMS in the State Health Spending estimates.
- The premium amounts were inflated to 2006 based on CMS projections of private health insurance spending increases, which we adjusted to reflect the higher than average rate of growth in private insurance premiums occurring in California in recent years. The CMS reports actual increases in per-enrollee employer insurance costs of 11.4 percent in 2002, 10.4 percent in 2003 and 8.7 percent in 2004. CMS projects that the annual rate of growth in employer insurance costs per enrollee in 2005 and latter to average about 7.1 percent annually. ${ }^{41}$ The CMS estimate of a down-turn in health spending growth starting in 2003 is consistent with data recently released by the Center for Studying Health System Change. ${ }^{42}$

[^25]- The CMS growth rate assumptions were increased by about 2.0 percentage points to reflect the higher than average rate of growth in employer premiums in California in recent years. The Kaiser/HRET data indicate that the average annual rate of growth in per-worker employer health insurance premiums in 2003 was about 15.9 percent compared to a national average growth of 13.9 percent; which is a difference in growth rates of about 15 percent. ${ }^{43}$ In our analysis, we assumed that the growth in private insurance premiums per-enrollee over the 2004 through 2006 period would continue to be about 15 percentage points above the rates of growth projected by the CMS for 2004 through 2006. This resulted in an annual growth rate of about 10.0 percent in 2004 and 8.2 percent in 2005 and 2006.
- We assume that the average rate of growth in private insurance premiums will be the same as the national average in 2007 and latter. This is generally consistent with historical data indicating that the growth in spending in California has tracked well with the national average since $1997 .{ }^{44}$
- We then estimated the number of insured workers in California in each of the firm size and individual/family coverage categories as reported in the California sub-samples of the combined March 2002 to 2003 Current Population Survey (CPS) data, which were projected to 2006. Total spending for people with employer sponsored insurance was computed by multiplying the number of insured workers by the estimated premium amounts.
- Based on these data, we estimate total spending for employer sponsored insurance in California to be $\$ 66$ billion in 2006 for workers and dependents (Figure B-3). Spending was allocated across service categories in proportion to the distribution of spending for people with employer sponsored coverage reported in the MEPS database.

[^26]Figure B-3
Estimated Total Spending for Employer-Sponsored Insurance (ESI) Under Current Law in California in 2006
(in millions) ${ }^{\text {a/ }}$

| Firm Size and Coverage Type | Total Annual Benefits Costs | Estimated Number of Insured Workers (1,000s) | Total Employer and Employee Spending (millions) |
| :---: | :---: | :---: | :---: |
| Individual Coverage |  |  |  |
| Under 10 Workers | \$3,298 | 549 | \$1,811 |
| 10-24 Workers | \$2,992 | 320 | \$957 |
| 25-99 Workers | \$2,888 | 613 | \$1,770 |
| 100-999 Workers | \$3,282 | 823 | \$2,701 |
| 1000 or More Workers | \$4,420 | 2,313 | \$10,223 |
| Family Coverage |  |  |  |
| Under 10 Workers | \$7,432 | 621 | \$4,615 |
| 10-24 Workers | \$7,513 | 378 | \$2,840 |
| 25-99 Workers | \$7,847 | 622 | \$4,881 |
| 100-999 Workers | \$9,372 | 877 | \$8,219 |
| 1000 or More Workers | \$10,677 | 2,576 | \$27,505 |
| Total Employer Spending |  |  |  |
| Total | N/A | 9,692 | \$65,523 |

a/ Includes ESI only and excludes administrative expenses. Does not include retirees. Source: Lewin Group estimates, using the Health Benefits Simulation Model (HBSM).

The remainder of private health spending includes household out-of-pocket spending, services covered under individually purchased insurance policies, employer spending for retiree coverage, and spending for TRICARE/Military and Veterans. The methods used to develop health spending estimates for these payer categories are discussed below:

We estimated the distribution of private health spending by type of service and source of payment using the 1996 MEPS household survey data. The health expenditures in the MEPS data were adjusted to match the levels of spending by source of payment and type of service in that year as derived from CMS data. The MEPS data was also adjusted to reflect the distribution of people in California by age, sex, income, industry, firm size and source of coverage as reported in the California sub-samples of the combined March 2002 and 2003 Current Population Survey (CPS) data. These adjusted data provided us with estimates of the relative distribution of private health spending by source of payment and type of services that reflects the unique demographic and health coverage characteristics of the California population.

We assumed the remainder of private spending for personal health care services in California was distributed by source of payment and type of service as shown in the MEPS data adjusted to the California population. This provided us with estimates of spending for: household out-ofpocket expenditures; employer coverage for retirees; individually purchased coverage (group and non-group); and TRICARE/Military and Veterans. MediGap wrap-around coverage for

Medicare beneficiaries is included in our estimate of individually purchased private coverage. Figure B-5 presents the distribution of health spending by source of payment and type of service when we use these assumptions to estimate spending for specific subcategories of private spending in 2006.

## D. Medicare Prescription Drug Benefit

To compute baseline spending in California for 2006, we needed to account for the Medicare prescription drug benefit, which will become effective in that year. We used the California version of HBSM, as described above, to estimate the cost of the Medicare prescription drug benefit and its impact on drug spending for other payers in California. For this simulation, we assumed that all Medicare beneficiaries would receive the Medicare prescription drug benefit except for those with retiree health benefits (the program provides subsidies to employers to continue their coverage of drugs). We also assumed that all Medi-Cal dual eligible beneficiaries would receive the Medicare drug benefit with no Medi-Cal wrap around benefit.

For each Medicare beneficiary that we assumed would enroll in the program, we computed their Medicare drug benefit based on their income level using the deductible and co-payment schedule under the program (Figure B-4).

Figure B-4
Medicare Prescription Drug Benefit - Deductible and Co-payments for 2006

| Poverty Level | Deductible | Co-payment |
| :--- | :--- | :--- |
| Below Poverty or Medi-Cal <br> dual eligible | None | \$1 Generics, \$3 Brand |
| $100 \%-135 \%$ FPL | None | \$2 Generics, \$5 Brand |
| $135 \%-150 \%$ FPL | $\$ 50$ | $15 \%$ Co-payment |
| Above $150 \%$ FPL | $\$ 250$ | $25 \%$ of total Rx cost up to $\$ 2,250$ <br> $100 \%$ of total Rx cost \$2,250 $-\$ 5,100$ <br> $5 \%$ of total Rx cost above $\$ 5,100$ |

Based on this analysis, we estimate the Medicare prescription drug benefit for California beneficiaries would be about $\$ 3.5$ billion in 2006. The Medicare drug benefit would reduce Medi-Cal spending for prescription drugs by about $\$ 2.0$ billion (state and federal share). However, under the new Medicare law, much of the state's share of these savings will be returned to the Federal government in the form of maintenance-of-effort (MOE) payments, which we estimate to be about $\$ 900$ million for California in 2006. This is reflected in our estimates of Medicaid spending.

## E. Insurer Administrative Costs

Insurer administrative costs in the health care sector include the insurer and health plan's costs of administering coverage and corporate profits. Administrative costs for public programs also include the cost of eligibility determination and federal reporting requirements. Insurer and public program administrative costs are not included in the personal health care expenditures
estimated above because personal health care costs include only direct payment to providers for health services.

In this section, we describe the methods used to estimate administrative costs for insurers and major public programs in California. Our estimates are presented separately for private insurers and government programs.

## 1. Insurer Administration

Data is generally unavailable on insurer administrative costs at the state level. However, CMS does collect these data at the national level. Private insurance administrative costs for the United States averaged about 12.7 percent of benefits costs over the 1998 through 2002 period. However, insurer administrative costs also vary widely with the size of the group purchasing insurance. For example, insurer administrative costs for small employer groups (i.e. 1-4 employees) and individually purchased non-group coverage can be equal to as much as 40 percent of benefit payments. By contrast, administrative costs are equal to only about 5.5 percent of benefit payments for fully insured groups with 10,000 or more employees. Large selffunded plans can have administrative costs equal to about 3.5 percent or less of benefits payments.

In this analysis, we estimated administrative costs for private insurance in California using the data supplied by the Hay/Huggins Company on administrative costs as a percentage of benefits payments for fully insured groups by size of group. ${ }^{45}$ These are:

| Non-Group | 30.7 percent |
| :--- | :--- |
| 1 to 4 workers | 30.7 percent |
| 5 to 9 workers | 30.7 percent |
| 10 to 19 workers | 30.0 percent |
| 20 to 49 workers | 25.0 percent |
| 50 to 99 workers | 18.0 percent |
| 100 to 499 workers | 16.0 percent |
| 500 to 2,499 workers | 12.0 percent |
| 2,500 to 9,999 workers | 8.0 percent |
| 10,000 or more | 5.5 percent |

Administrative costs for self-funded plans are assumed to be equal to about two-thirds of fully insured administrative loading to reflect the fact that these plans have no insurance broker/agent costs and that there are no "risk premiums" paid to insurers when the employer assumes all of the risk.

We then calibrated our estimates of administrative costs to replicate our assumed overall administrative cost loading of 12.7 percent of covered benefits, derived from CMS data. Using

[^27]this method, we estimate that private insurer administrative costs in California would be about $\$ 9.5$ billion in 2006.

## 2. Government Program Administrative Costs

Administrative costs for government programs have increased in recent years. Public program administrative costs as a percentage of benefit payments are projected by CMS to increase from 5.2 percent in 1998 to 5.5 percent in 2006. Much of this growth in program administrative costs reflects rapid growth in the number of Medicare beneficiaries and recent expansions in eligibility for children under the SCHIP programs.

We estimated administrative costs for public programs in California under two approaches. For state programs, such as Medi-Cal, Healthy Families and AIM, we obtained administrative costs from the respective agencies. For federally funded programs, such as Medicare and TRICARE/Military, we used the national average of administrative costs as a percentage of benefits paid for these programs. We estimate that total administrative costs for public programs in the state (including federal, state and local governments) will be about $\$ 4.6$ billion in 2006.

Administrative costs in the Workers Compensation program are assumed to be equal to about 21 percent of total program costs based upon recent analyses of the California Workers Compensation system. ${ }^{46}$ The cost of administering the Medical component of the Workers Compensation program is included in total health spending for the state, although workers compensation would remain separate from benefits provided under the Act.

## 3. Provider Administrative Costs

Providers incur costs in submitting insurance claims and administering their practice. These costs are paid by providers as a cost of doing business out of the payments received for services provided. Thus, administrative costs for providers are included in the provider payments estimated above. Our analysis of provider administrative costs is presented in Appendix A.

## F. California Health Spending in 2006 Under Current Law

The results of this analysis are a detailed accounting of health expenditures in California showing total state expenditures by type of service and source of payment. As shown in Figure B-5, we estimate total health spending in California will be about $\$ 184.2$ billion in 2006. This includes expenditures for personal health care services (\$170.2 billion) and insurer and program administration ( $\$ 14.0$ billion).

Out-of-pocket spending for health services (i.e., coinsurance, deductibles and self-pay) is estimated to be $\$ 21.7$ billion. Total private insurance expenditures are projected to be $\$ 84.2$ billion, of which $\$ 73.3$ billion will be for employer coverage of workers (including government workers), $\$ 5.3$ billion will be for employer coverage of retirees (including government retirees) and $\$ 5.6$ billion will be for individually purchased health insurance (including MediGap).

[^28]Medicare spending for California is estimated to be $\$ 36.7$ billion. Total spending under MediCal (including HF and AIM) is estimated to be $\$ 27.9$ billion and spending for all other programs is projected to be about $\$ 16.7$ billion.

Figure B- 5
Estimated Health Spending in California by Type of Service and Source of Payment Under Current Law in 2006

| (in millions) ${ }^{\text {a/ }}$ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Service | Total | Out of Pocket | Employer: Workers | Employer: Retirees | NonGroup | Medicare | Medicaid | TRICARE/ Veterans and Other Federal | Workers Comp | Other Public |
| Health Expenditures in California | \$184,234 | \$21,714 | \$73,296 | \$5,305 | \$5,557 | \$36,666 | \$27,879 | \$1,702 | \$6,163 | \$5,952 |
| Personal Health Care | \$170,213 | \$21,714 | \$65,523 | \$4,912 | \$4,253 | \$35,633 | \$25,742 | \$1,680 | \$5,094 | \$5,662 |
| Hospital Care | \$51,966 | \$1,266 | \$16,730 | \$1,198 | \$940 | \$16,356 | \$10,364 | \$735 | \$1,968 | \$2,408 |
| Physicians Services | \$60,327 | \$5,578 | \$32,309 | \$2,027 | \$2,124 | \$11,011 | \$3,689 | \$499 | \$2,111 | \$979 |
| Dental Services | \$11,937 | \$4,744 | \$5,954 | \$194 | \$214 | \$15 | \$816 | \$0 | \$0 | \$0 |
| Other Professional Services | \$7,575 | \$2,096 | \$2,780 | \$155 | \$370 | \$1,099 | \$295 | \$0 | \$688 | \$92 |
| Home Health | \$2,103 | \$697 | \$0 | \$0 | \$0 | \$1,235 | \$161 | \$10 | \$0 | \$0 |
| Drugs | \$19,435 | \$3,503 | \$7,477 | \$1,292 | \$531 | \$3,516 | \$2,724 | \$84 | \$308 | \$0 |
| Medical Durables | \$2,507 | \$736 | \$273 | \$46 | \$74 | \$1,109 | \$230 | \$0 | \$18 | \$21 |
| Nursing Home | \$8,048 | \$3,094 | \$0 | \$0 | \$0 | \$1,292 | \$3,662 | \$0 | \$0 | \$0 |
| Other Personal Health Care | \$6,316 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,801 | \$352 | \$0 | \$2,162 |
| Program Administration | \$14,021 | \$0 | \$7,773 | \$393 | \$1,304 | \$1,033 | \$2,137 | \$22 | \$1,069 | \$290 |

a/ Health spending includes medical benefits costs under the worker's compensation program. As discussed above, workers compensation
medical benefits would remain separate from the program.
b/ Includes Lewin estimate of federal funding for clinics is included as "Other Personal Care."
Source: Lewin Group estimates, using the Health Benefits Simulation Model (HBSM).

## APPENDIX C THE CALIFORNIA VERSION OF THE HEALTH BENEFITS SIMULATION MODEL (HBSM)

The Health Benefits Simulation Model (HBSM) is a micro-simulation model of the U.S. health care system developed by The Lewin Group. For this study we adapted HBSM for use in modeling the California health care system. The model is designed to simulate the impact of a wide range of universal coverage proposals such as single-payer plans and employer mandates. HBSM is also designed to simulate more narrowly designed proposals such as Medicaid/SCHIP eligibility expansions or changes in the tax treatment of employer provided health benefits.

The methods used to develop the California version of HBSM are summarized below. We begin by summarizing how HBSM is used to simulate the impact of health reform proposals. ${ }^{47}$

## A. Simulating the Impact of Health Reform

HBSM was created to provide comparisons of the impact of alternative health reform models on coverage and expenditures for employers, governments and households. The key to its design is a "base case" scenario depicting the distribution of health services utilization and expenditures across a representative sample of households under current policy for a base-year such as 2006. In this analysis, the base case scenario would be based upon recent surveys of households in California. We also "aged" these data to be representative of the population in 2006 based upon recent economic, demographic and health expenditure trends. The resulting database provides a detailed accounting of the California health care system. These base case data serve as the reference point for our simulations of alternative health reform proposals.

We estimate the impact of health reform initiatives using a series of methodologies that apply uniformly in all policy simulations. The model first simulates how these policies would affect sources of coverage, health services utilization and health expenditures by source of payment (Figure C-1). Mandatory coverage programs such as employer mandates or single-payer models can be simulated based upon the detailed employment and coverage data recorded in the database. The model also simulates enrollment in voluntary programs such as tax credits for employers and employees, based upon multivariate models of how coverage for these groups varies with the cost of insurance (i.e., modeled as the premium minus the tax credit). In addition, the model simulates enrollment in Medi-Cal and Healthy Families (i.e., the State Children's Health Insurance Program (SCHIP)) under eligibility expansions based upon a multivariate analysis of take-up rates under these programs, including a simulation of coverage substitution (i.e., "crowd out").

HBSM is designed to facilitate comparisons of alternative health reform initiatives using uniform data and assumptions. For example, take-up rates for Medicaid and various tax credit/premium voucher policies are simulated using uniform take-up equations and modules.

[^29]Figure C-1
Flow Diagram of the Health Benefits Simulation Model (HBSM)


Uniform methods are also used to simulate changes in health services utilization attributed to changes in coverage status and cost-sharing parameters. The model also uses a series of uniform figures for reporting the impacts of these policies on households, employers and governments. This uniform approach assures that we can develop estimates of program impacts for very different policies using consistent assumptions and reporting formats. The use of uniform processes also enables us to simulate the impact of substantially different policy options in a short period of time.

The model also simulates any "adverse selection" resulting from the design of these policy options (adverse selection is the disproportionate accumulation of higher cost cases in a given insurance pool). Often, policies that give employers or consumers a choice between different types of coverage models create financial incentives that affect their choice of coverage. For example, there are several proposals at the national level that would give employers the option of purchasing coverage under the Federal Employees Health Benefits Program (FEHBP) at a community-rate. This would tend to attract employers with high health care costs who find that the FEHBP community-rated premium is less than the cost of an experience-rated plan for that group in the private market. HBSM simulates these incentives and estimates the cost impacts of these selection effects.

Once changes in sources of coverage are modeled, HBSM simulates the amount of covered health spending for each affected individual, given the covered services and cost-sharing provisions of the health plan provided under the proposal. This includes simulating the increase in utilization among newly insured people and changes in utilization resulting from the cost-sharing provisions of the plan. In general, we assume that utilization among newly insured people will increase to the level reported by insured people with similar characteristics. We also simulate the impact of changes in cost-sharing provisions (i.e., co-payments, deductibles, etc.) on utilization.

In this analysis, HBSM is based upon a representative sample of households in the state, which includes information on the economic and demographic characteristics of these individuals as well as their health services utilization and expenditures. These data are based upon the 1996 Medical Expenditures Panel Survey (MEPS) of households that we used together with the California sub-sample of the March 2002 Current Population Survey (CPS). The model also uses results from the 2003 Kaiser/HRET survey of employers for policy scenarios involving employers (sample includes about 1,000 employers in California. We adjusted these data to show the amount of health spending in the state by type of service and source of payment as estimated by the Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS) and various state agencies. The methods used to develop these baseline data are discussed below.

Changes in employer costs are assumed to be passed-on to workers in the form of changes in wage growth over time. For example, policies that increase employer costs would result in a corresponding reduction in wages for affected workers, with a corresponding reduction in income and payroll tax revenues. Similarly, reductions in employer costs are assumed to be passed on to workers as wage increases. We assume that this occurs for all workers including unionized and non-unionized labor. HBSM includes a tax module that simulates tax effects due to these changes in wages.

## B. Household Data for California

The HBSM baseline data for California is derived from a sample of households that is representative of the economic, demographic and health coverage characteristics of the state's population. Unfortunately, there is no one database that provides all of this information for a representative sample of the California population. Consequently, we developed a "synthetic" representation of the distribution of the California population based upon the various available data sources.

HBSM uses the 1996 MEPS data to provide the underlying distribution of health care utilization and expenditures across individuals by age, sex, income, source of coverage, and employment status. We re-weighted this database to reflect population control totals for the California population reported in the California sub-sample of the CPS for 2003.48 These weight adjustments were done with an iterative proportional-fitting model, which adjusts the data to match approximately 250 separate classifications of individuals by socioeconomic status, sources of coverage, and job characteristics in the California CPS sub-sample. Iterative proportional fitting is a process where the sample weights for each individual in the sample are repeatedly adjusted in a stepwise fashion until the database simultaneously replicates the actual distribution of people across each of these variables in the state. ${ }^{49}$

This approach permits us to simultaneously replicate the distribution of people across a large number of variables while preserving the underlying distribution of people by level of healthcare utilization and expenditures as reported in MEPS. These data can be further tuned in the re-weighting process to reflect health service utilization levels (e.g., hospitalizations) in the state. This approach implicitly assumes that the distribution of utilization and expenditures within the population groups in the re-weighting processes are the same as reported in the nationwide MEPS data.

We also "aged" the health expenditure data reported in the California MEPS database to reflect changes in the characteristics of the population through 2006. These data are adjusted to reflect projections of the health spending by type of service and source of payment in California for the base-year (i.e., 2006). These spending estimates are based upon health spending data for California collected by CMS, which we project to 2006 based upon health spending trend data also provided by CMS. The result is a database that is representative of the base-year population by economic and demographic group, which also provides extensive information on the joint distribution of health expenditures and utilization across population groups. ${ }^{50}$

[^30]In addition, we "enhanced" the California MEPS data to provide the information required to simulate the impact of changes in taxes associated with changes in employer health spending under expansions in coverage. For example, we used the HBSM tax module to estimate income and payroll tax payments for each tax filing unit (i.e., single, head of household and joint filers) to provide the information required to simulate the impact of changes in earnings as employer pass-through the changes in employer health benefits costs to workers under the proposal. ${ }^{51}$ This includes the filing unit's federal and state marginal tax rates and the tax expenditures attributed to the employer health benefits tax exclusion.

## C. Employer Database

The model includes a database of employers for use in simulating policies that affect employer decisions to offer health insurance. In this project, we used the annual survey of employers conducted by the Kaiser Family Foundation and the Health Research and Educational Trust (HRET) for 1999. These data were controlled to reflect the results of the KFF/HRET survey for California employers in 2003. These surveys include about 1,000 randomly selected public and private employers with 3 or more workers in the state. They provide information on whether the employer sponsors coverage and the premiums and coverage characteristics of the plans that insuring employers offer in the state. In this analysis, we adjusted these data to reflect the distribution of workers in California by firm size, industry and wage level.

Working individuals in the California MEPS data are randomly assigned to KFF/HRET employers who report similar workforce and demographic characteristics. Individuals and firms are matched on the basis of reported industry, firm size and other characteristics of an employer's workforce. In addition, we controlled for the income and demographic characteristics of each employer's workforce when matching individuals to employers. ${ }^{52}$ Thus, if a firm reports that they employ mostly low-wage female workers, the firm tended to be matched to low-wage female workers in the household data. Thus, HRET firms are matched to workers with health expenditure patterns that are generally consistent with the premiums reported by the firm. This feature is crucial to simulating the effects of employer coverage decisions that impact the health spending profiles of workers going into various insurance pools.

Our estimates for 2006 under current law reflect the requirements for employers to contribute to the cost of covering their workers implemented under SB 2, which was signed into law in October of 2003. Under SB 2, firms with 200 or more workers are required to contribute to the cost of covering all workers working over 100 hours per month. This affects relatively few workers because most firms of that size already offer coverage to their full-time workers. The effects of SB 2 in 2006 were estimated using HBSM for that year.

[^31]
## D. Benchmarking to California Data

A key element in developing the baseline database was to control the California MEPS baseline database to match all available data on the demographic and economic characteristics of the population as well as health services utilization and expenditures in the state. The methods used to "benchmark" these data include:

- Population Data: As discussed above, the weights in the MEPS data were adjusted to simultaneously replicate the distribution of the California population by source of coverage and over 100 other variables (Figure C-2). ${ }^{53}$ These variables include: demographic distributions by age, sex, marital status, race, and ethnicity; employment characteristics such as industry, firm size, wage level, and coverage at work; income data including total family income and earnings; and insurance coverage by each source including Medicare, Medicaid, ESI, retiree coverage, other sources, and the uninsured. These data are corrected for underreporting of Medicaid enrollment. These data are then aged to a future year through additional sample weight adjustments based upon Bureau of the Census population projections.
- Coverage Estimates: In this analysis, we corrected both the MEPS and the CPS data for underreporting of Medicaid coverage by assigning people who appear to be eligible for the program to Medicaid covered status. ${ }^{54} \mathrm{We}$ also calibrate these data to reflect coverage expansions that have occurred since these data were collected. We then create comparable definitions of covered status in the two databases, which enable us to use the 2002 CPS data as control totals for the 1996 MEPS. The MEPS reports sources of coverage by month for 12 months while the CPS reports sources of coverage in the prior year. However, both data bases permit us to identify the "primary source" of coverage for individuals in the prior year, where uninsured is treated as a "coverage" category. ${ }^{55}$
- Health Expenditures: Once the California MEPS data were re-weighted for population and coverage, we adjusted the health spending data in the file to match the aggregate level of health spending by type of service and source of payment in the state. These data are available from the National Health Accounts as developed by the Office of the Actuary of the CMS. We then controlled the model to use estimated trends in health spending in future years developed by CMS. 56 This task involves matching the service and coverage definitions in MEPS to the CMS data, which use different classifications of expenditures. The derivation of health spending estimates in California for 2006 is presented in Appendix B.

[^32]- Economic Data: The model was used to age the household and employer data to reflect projected growth in earnings and income from other sources. This was done in a two step process. The first step simulates the widening gap in income between the highest and lowest income groups in the US. ${ }^{57}$ In the second step, we adjusted total income by source to match data available for the state from various state and federal agencies.
${ }^{57}$ In this step, income for individuals in the MEPS is increased by the average change in total family income for people by decile ranking of the population between 1996 and 1999, as reported in the 1997 and 2000 CPS data. Thus, incomes for the lowest income decile of the population in the 1996 MEPS data are increased by the increase in average income levels for the lowest income decile of the population between 1996 and 1999. Total income for people in other decile groups are adjusted in the same way. This approach is intended to improve upon the practice of simply increasing income for all people in the data by a uniform percentage that does not reflect differences in income growth by level of income.

Figure C-2
Population Estimates Used in the California Model for 2003
(in Thousands)

| Age and Sex |  | Race/Ethnicity |  |
| :---: | :---: | :---: | :---: |
| Male <10 | 2,703.6 | White | 21,929.0 |
| Male 10-19 | 2,805.2 | Black | 2,254.1 |
| Male 20-29 | 2,582.7 | Hispanic | 5,957.2 |
| Male 30-39 | 2,754.6 | Other | 4,683.2 |
| Male 40-49 | 2,579.8 | Total | 34,823.6 |
| Male 50-59 | 1,820.5 | Hourly Wage |  |
| Male 60-69 | 1,038.8 | Less than \$7 | 2,425.9 |
| Male 70-79 | 665.1 | \$7-\$10 | 2,460.9 |
| Male 80+ | 332.7 | \$10-\$15 | 3,367.8 |
| Female <10 | 2,604.3 | \$15-\$20 | 2,550.7 |
| Female 10-19 | 2,658.5 | \$20 and over | 6,428.4 |
| Female 20-29 | 2,473.3 | Non-worker | 17,589.6 |
| Female 30-39 | 2,668.4 | Total | 34,823.6 |
| Female 40-49 | 2,677.3 | Worker Coverage Status |  |
| Female 50-59 | 1,944.9 | Non-worker | 17,589.6 |
| Female 60-69 | 1,095.0 | Covered on Own Job | 9,933.7 |
| Female 70-79 | 906.7 | Spousal Coverage | 2,344.7 |
| Female 80+ | 511.4 | No Employer Coverage | 4,955.6 |
| Total | 34,823.6 | Total | 34,823.6 |
| Insurance Category |  | Industry |  |
| Medicare/Other | 1,386.0 | Non-worker | 17,589.6 |
| Medicare+Retiree | 738.7 | Construction | 938.6 |
| Medicare+Medicaid | 918.1 | Manufacturing | 2,095.9 |
| Medicare/Non-group | 610.7 | Transportation | 744.0 |
| TRICARE/Military | 650.9 | Wholesale Trade | 588.3 |
| Medicaid Only | 6,792.5 | Retail Trade | 2,090.6 |
| Employer/Worker | 9,477.0 | Services | 5,388.2 |
| Employer/Dependent | 7,795.4 | Finance | 1,100.2 |
| Retiree | 246.3 | Federal Government | 450.8 |
| Non-group | 1,756.5 | State Government | 655.0 |
| Uninsured | 4,451.5 | Local Government | 1,454.3 |
| Total | 34,823.6 | Self-Employed | 1,317.9 |
|  |  | Other | 409.5 |
|  |  | Total | 34,823.6 |

Figure C-2 (continued)
Population Estimates Used in the California Model

| Family Income |  | Covered by Firm Size |  |
| :---: | :---: | :---: | :---: |
| Less than \$10,000 | 2,540.5 | Non-worker | 17,589.6 |
| \$10,000-\$14,999 | 1,824.9 | Covered 1-9 | 1,231.9 |
| \$15,000-\$19,999 | 2,024.5 | Covered 10-24 | 712.1 |
| \$20,000-\$29-999 | 3,948.3 | Covered 25-99 | 1,284.7 |
| \$30,000-\$39,999 | 3,787.1 | Covered 100-499 | 1,259.1 |
| \$40,000-\$49,999 | 3,057.2 | Covered 500-599 | 485.9 |
| \$50,000-\$74,999 | 6,014.9 | Covered 1,000+ | 3,081.4 |
| \$75,000-\$99,999 | 4,610.2 | Covered Government | 1,878.6 |
| \$100,000-\$149,999 | 4,412.9 | Not Covered 1-9 | 2,415.9 |
| \$150,000 and over | 2,602.8 | Not Covered 10-24 | 944.3 |
| Total | 34,823.6 | Not Covered 25-99 | 975.6 |
| Marital Status |  | Not Covered 100-499 | 694.0 |
| Married | 13,492.0 | Not Covered 500-999 | 237.9 |
| Divorced | 2,401.4 | Not Covered 1,000+ | 1,323.8 |
| Widowed | 1,425.0 | Not Covered Government | 708.8 |
| Other | 17,505.2 | Total | 34,823.6 |
| Total | 34,823.6 | Full-Time/Part-Time |  |
| Income as a Percent of Poverty Level |  | Non-Worker | 17,589.6 |
| Under FPL | 4,446.0 | Under 65 FT/FY | 11,860.8 |
| 100\%-149\% of FPL | 3,584.8 | Under 65 PT/FY | 1,549.5 |
| 150\%-199\% of FPL | 3,180.9 | Under 65 FT/PY | 2,183.0 |
| 200\%-249\% of FPL | 3,136.3 | Under 65 PT/PY | 1,162.2 |
| 250\%-299\% of FPL | 2,681.0 | 65 and Over FT/FY | 218.0 |
| 300\%-399\% of FPL | 4,413.1 | 65 and Over PT/FY | 110.5 |
| 400\% + of FPL | 13,367.4 | 65 and Over FT/PY | 63.2 |
| Total | 34,823.6 | 65 and Over PT/PY | 86.3 |
| Workers in Family |  | Total | 34,823.6 |
| 1 Worker | 16,620.7 |  |  |
| 2 or More Workers | 12,108.2 |  |  |
| Other | 6,094.7 |  |  |
| Total | 34,823.6 |  |  |

a/ Includes correction for underreporting of Medicaid coverage in the CPS.
Source: Lewin Group analysis of the California sub-sample of the March 2002 Current Population Survey (CPS) data.


[^0]:    ${ }^{1}$ The Kaiser/HRET data contains only some of this information. To use these data in our analysis, we statistically matched the Kaiser/HRET data with employers surveyed in the 1991 Health Insurance Association of America (HIAA) which is the most recent employer survey to provide detailed information on the characteristics of their workforce. We controlled for worker wage levels, industry, firm size and other characteristics reported in the Kaiser/HRET data.

[^1]:    ${ }^{2}$ Respondents in the CPS/MEPS data who indicated that they had expenses for these services that were reimbursed by a health plan were assigned to a plan that covers these services.
    ${ }^{3}$ W.G. Manning et., al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," The American Economic Review, vol.77, No. 3, June 1987, pp.251-277.
    ${ }^{4}$ Victor R. Fuchs and James S. Hahn, "How Does Canada Do It? A Comparison of Expenditures for Physician's Services in the United States and Canada," New England Journal of Medicine, vol.323, September 27, 1990, 13, pp. 884.

[^2]:    ${ }^{5}$ The Lewin Group In., "New Evidence on Savings from Network Models of Managed Care," (a report to the Healthcare Leadership Council), Washington DC, May 1994.

[^3]:    ${ }^{6}$ Lewin Group estimates based upon the Brookings/ICF Long-Term Care Financing Model using data from the 1982-1984 National Long-Term Care Survey. See: Kennell, D., et.al., "Assumptions Used to Estimate the Costs for Long-Term Care Recommendations," The Lewin Group.

[^4]:    7 "Prescription Drug Coverage, Spending, Utilization, and Prices," (Report to the President from the Department of Health \& Human Services), April 2000.

[^5]:    ${ }^{8}$ Sheils, et al., "O Canada: Do We Expect Too Much From Its Health System," Health Affairs, Spring 1992.

[^6]:    9 "Medicaid Payment Accuracy Measurement Project: Year 2 Interim Report," (Report to the Office of Management and Budget), Centers for Medicare and Medicaid Services (CMS), Center for Medicaid and State Operations, Finance, Systems, and Budget Group), December 2003.
    ${ }^{10}$ Because hospital budgets in the first year of the program are set equal to what would have been spent on hospital care under the current system (plus an allowance for increases utilization for newly insured), we implicitly assume that the cost of any hospital fraud that exists in the current system is retained in first-year funding levels.

[^7]:    ${ }^{11}$ See, for example, James Heckman, "What Has Been Learned About Labor Supply in the Past Twenty years?" American Economic Review, (May 1993).
    ${ }^{12}$ See, for example, Jonathan Gruber and Alan B. Kreuger, "The Incidence of Mandated EmployerProvided Insurance: Lessons from Workers Compensation Insurance," in Tax Policy and the Economy (1991); Jonathan Gruber, "The Incidence of Mandated Maternity Benefits, " American Economic Review, (forthcoming); and Lawrence H. Summers, "Some Simple Economics of Mandated Benefits, " American Economic Review (May 1989).

[^8]:    ${ }^{13}$ Except for changes in relative payment levels across providers and services deemed necessary by the Commissioner such as an increased emphasis on primary care.

[^9]:    ${ }^{14}$ No adjustment is made for insurer administrative savings because these savings are already realized by the elimination of private insurance for SB 921 covered services.

[^10]:    ${ }^{15}$ There would generally be no need to identify people who would have been eligible for these programs because coverage is comprehensive and uniform.

[^11]:    ${ }^{16}$ As discussed below, we estimate a net reduction in wages in 2006 under the Act program of about $\$ 2.2$ billion in response to the increase in employer health benefits costs under the program.

[^12]:    ${ }^{17}$ Ibid.
    ${ }^{18}$ As discussed above, under SB 2, firms with 200 or more workers are required to contribute to the cost of covering all workers working over 100 hours per month. This affects relatively few employers because most firms of that size already cover their full-time workers.

[^13]:    ${ }^{19}$ Non-insured workers in firms that offer coverage are either ineligible for the employer's plan (e.g., part-time worker) or have voluntarily declined coverage under the employer's plan.

[^14]:    ${ }^{20}$ Data from the employer component of the 2001 Medical Expenditures Panel Survey (MEPS) data for California.

[^15]:    ${ }^{21}$ See, for example, Jonathan Gruber and Alan B. Kreuger, "The Incidence of Mandated EmployerProvided Insurance: Lessons from Workers Compensation Insurance," in Tax Policy and the Economy (1991); Jonathan Gruber, "The Incidence of Mandated Maternity Benefits, " American Economic Review, (forthcoming); and Lawrence H. Summers, "Some Simple Economics of Mandated Benefits, " American Economic Review (May 1989).
    ${ }^{22}$ See, for example, James Heckman, "What Has Been Learned About Labor Supply in the Past Twenty years?" American Economic Review, (May 1993).
    ${ }^{23}$ This estimate is consistent with estimates found in the literature. For example, Gruber and Kreuger, op. cit., find that about 85 percent of the costs of mandated workers' compensation benefits are shifted to employees in the form of reduced wages, while Gruber, op. cit., found that virtually all of the employer's cost of mandated maternity benefits were shifted to the employee.
    ${ }^{24}$ This is a net figure for all workers including public and private employers.

[^16]:    ${ }^{26}$ This is the amount of the reduction in wages less the resulting reduction in income and payroll taxes for these workers.

[^17]:    ${ }^{27}$ Return visits to specialists are covered if initial visit to specialist was referred by a primary care provider.

[^18]:    ${ }^{28}$ Sheils, J., et al., "National Health Spending under a Single-Payor System: The Canadian Approach," The Lewin Group, Staff Working Paper, January 1992.

[^19]:    ${ }^{29}$ Stephen Heffler, et al., "Health Spending Projections for 2001-2011: The Latest Outlook," Health Affairs, March/ April 2002, volume 21, number 2.

[^20]:    ${ }^{30}$ These administrative cost estimates are based upon the: Budget of the United States Government: Fiscal Year 2000.

[^21]:    ${ }^{31}$ Projections of physician net revenues were provided by the Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS). Data on physician expenses were obtained from: Medical Group

[^22]:    ${ }^{36}$ This estimate is based upon industry data showing that electronic claims transmission can potentially save about 50 cents per claim.

[^23]:    ${ }^{37}$ In Canada, allowable rates of return to shareholder equity are negotiated between for-profit hospitals and the provinces.

[^24]:    ${ }^{38}$ These figures include paid medical services for that year only. This differs from incurred claims which includes the expected amount of medical spending throughout the life of each injury claim occurring in the year. See: Workers Compensation Insurance Rating Board (WCIRB), Annual Reports, San Francisco: WCIRB, 1996-2003.
    ${ }^{39}$ Midrange savings estimate. See: Frank Neuhauser, "Estimating the Range of Savings from introduction of guidelines including ACOEM," (Memorandum to Christine Baker), UC/DATA/Survey Research Center, University of California, Berkeley, October 20,2003.
    ${ }^{40}$ Estimates provided by Lucien Wulsin of the Insure the Uninsured Project.

[^25]:    ${ }^{41}$ Stephen Heffler, Sheila Smith, Sean Keehan, M. Kent Clemens, Mark Zezza and Christopher Truffer, "Health Spending Projections Through 2013," Health Affairs, February 2004.
    ${ }^{42}$ Bradley C. Struck and Paul B. Ginsburg, "Tracking Health Care Costs: Trends Turn Downward in 2003," Health Affairs, June 2004.

[^26]:    ${ }^{43}$ See: "California Health Benefits Survey, 2003", and "Employer Health Benefits, 2003" based upon employer surveys conducted by the Kaiser Family foundation and the Health Research and Education Trust (KFF/HRET).
    ${ }^{44}$ Based upon Lewin Group analysis of the employer component of the Medical Expenditures Panel Survey data (MEPS) for 1997 through 2001.

[^27]:    ${ }^{45}$ Hay/Huggins Company, Inc. As appeared in: "Cost and Effects of Extending Health Insurance Coverage" Congressional Research Service (CRS), October 1988. Rates for non-group and small-group coverage were adjusted to reflect typical administrative loading in large Blue Cross/ Blue Shield plans.

[^28]:    ${ }^{46}$ California Commission on Health and Safety and Workers Compensation, 2002-2003 Annual Report, California State Department of Industrial Relations, December 2003.

[^29]:    ${ }^{47}$ A detailed documentation of the methods used to simulate the impact of major health reform proposals is presented in "The Health Benefits Simulation Model (HBSM): Uniform Methodology and Assumptions", (report to the Robert Wood Johnson Foundation (RWJF)), October, 2002.

[^30]:    ${ }^{48}$ The 2002 CPS included a much expanded sample designed improve the reliability of estimates derived from these data.
    ${ }^{49}$ The process used is similar to that used by the Bureau of the Census to establish final family weights in the March CPS.
    ${ }^{50}$ Some modelers have imputed health data to the CPS from the MEPS data, rather than aging the MEPS. However, it is extremely difficult to replicate the distribution of health care utilization and expenditures in the CPS with the available imputation methodologies. We feel that it is substantially less difficult to age the MEPS data than it is to impute complex joint distributions of health utilization and spending to the CPS.

[^31]:    ${ }^{51}$ The imputed tax rates are cross-checked against the distribution of marginal tax rates for insured and uninsured families as reported in the March CPS.
    ${ }^{52}$ The Kaiser/HRET data contains only some of this information. To use these data in our analysis, we statistically matched the Kaiser/HRET data with employers surveyed in the 1991 Health Insurance Association of America (HIAA) which is the most recent employer survey to provide detailed information on the characteristics of their workforce. We controlled for worker wage levels, industry, firm size and other characteristics reported in the Kaiser/HRET data.

[^32]:    ${ }^{53}$ This iterative weighting process is based upon the iterative proportional fitting methodology. It is generally similar to the methods used by the Bureau of the Census to develop family weights while maintaining key demographic distributions.
    ${ }^{54}$ The model replicates the average monthly enrollment levels reported in the HCFA 2082 reports by class of eligibility. The imputation process is calibrated so that it matches HCFA 2082 data on the number of people enrolled some time during the year.
    55 "Uninsured" in the CPS was defined to be people uninsured all year after correcting for underreporting of Medicaid. In the MEPS, for benchmarking purposes, uninsured was defined to be people who were uninsured for over nine months.
    ${ }^{56}$ We generally prefer to use CBO health spending projections to assure consistency with CBO's economic assumptions, which we also use in the model.

